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A STUDY OF THE EFFECTS OF ALTERATIONS IN THE
WORKWEEK UPON AN EDUCATIONAL ORGANIZATION

by



JACK MAXWELL WOOD

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
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THE UNIVERSITY OF ALBERTA
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled A STUDY OF THE EFFECTS OF ALTERATIONS IN THE WORKWEEK UPON AN EDUCATIONAL ORGANIZATION submitted by JACK MAXWELL WOOD in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Educational Administration.

ABSTRACT

The purpose of this study was to investigate the effects upon an organization associated with alterations in the structuring of the workweek. The study was designed to focus upon differences pertaining to both inter and intra-group perceptions of organizational operations and the effects of various allocations of working hours. Data were collected from a stratified random sample of management and non-management personnel employed within the various branches of the Alberta Department of Education. Descriptive and inferential statistics were employed to analyze the data, and statistical significance was reported when the obtained probability was not greater than .05.

In the first section of the data analysis inter-group differences in perceptions of organizational operations associated with various workweek structures were examined. Generally, it was found with the exception of one case, that the management personnel did not perceive any significant differences in the level of job satisfaction within these various workweek structures. However, the non-management personnel perceived significant differences for all aspects of job satisfaction measured in this study, and in all cases the two groups involved in altered workweeks indicated higher job satisfaction than the Standard Hours group. The findings disclosed that a number of significant differences were found among variables relating to changes

in organizational performance among both management and non-management personnel employed across these various time structures. Also, it was found that the non-management respondents involved in some form of re-arranged workweek indicated a considerable improvement in family interaction and personal relationships since adopting these innovations.

However, in the majority of the cases where important differences were found relating to decreased participation in leisure activities, the two groups involved in altered workweeks noted a greater decline in participation than the Standard Hours group. In addition it was found that the two groups involved in the restructured workweek made greater utilization of the public transit system than the Standard Hours group. Furthermore, the groups involved in altered workweeks made greater use of car pools, and tended to draw more members of their car pools from outside of their immediate family than the Standard Hours respondents.

In the second section of the empirical analysis, intra-group perceptions of organizational operations were examined. It was found that there were many more significant differences between Standard Hours management and non-management perceptions of job satisfaction than were obtained within each of the other two groups. Also, within the Standard Hours group, the non-management personnel indicated that any changes that had occurred in

organizational performance were less acceptable to them, whereas generally within the two groups involved in altered workweeks the non-management groups indicated a higher level of acceptability than their management counterparts. Furthermore, it was found that the Standard Hours system may be placing strain upon the family interaction and personal relationships for many management personnel.

Additional investigation disclosed that the implementation of a specific innovation in the management of time had been associated with a number of changes in indicators of operational costs. Also, it was found that management and non-management personnel considered that service to the public had improved since the adoption of these innovations, but clients of these respective branches recorded some deterioration in the nature of services.

Finally, it was found that almost 80 percent of Standard Hours respondents favored the adoption of a rearranged workweek, although they were almost equally divided in their preference for a Flextime or Compressed Hours model.

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CHAPTER I

DEFINITION AND DISCUSSION OF THE PROBLEM

Some men see things as they are and say: why?
I dream of things that never were and say: why not?
G.B. Shaw

INTRODUCTION

In 1926 Henry Ford introduced the 5 day week to workers (while maintaining a 6 day pay equivalent) in the automobile industry, and this perhaps represented the most significant innovation in the management of time since the industrial revolution. This 5 day, 40 hour week (5/40) was considered beneficial to the worker because it provided increased leisure as well as the opportunity for increased consumption. With the exception of the 5/40 workweek, neither management nor organized labour had expressed any further commitment towards an examination of the organization of time and its relation to productivity until the 1960's.¹ Despite the fact that during this period there has been a consistent trend towards a decrease in the Standard Hours of work, the rate of decline has been somewhat erratic, and little attention had been devoted towards innovations in the structure of the working hours.

Thus, throughout most of the 20th Century organized

¹Some interest expressed during the depression in 1930's, but not operationalized.

labour and management have focused upon changes in the level of income and fringe benefits as a reward for increased productivity, rather than a reduction or re-organization of working hours.

In the 1960's, both labour and management in many industries, (including some school districts) began to examine various innovations in the management of time and the prospects for increased leisure. For example, Marks (1974:2) commenting on introduction of Flexible Hours in the Canadian Federal Public Service stated:

Over the past several years, trends have developed an awareness on the part of management, employees and unions of the need to re-examine established work patterns and to consider new approaches that are more compatible with changing life styles. People of all ages now place a greater value on self-fulfillment in their personal life and demand a larger degree of participation in determining their work - and leisure - time allocations.

New models for the organization of time such as "Flextime", "Time Banks", and the "Compressed Workweek" have emerged, and many of these innovations are being closely examined by labor and management groups in a variety of industrial settings. For example Harrison (1972) noted that between 1971 and 1972 the number of companies introducing a Compressed Workweek in North America increased tenfold. More specifically, Hameed (1974:13) noted that within Canada a Federal Department of Labor Survey in 1973 estimated that there were over 233 plants across Canada operating on a

Compressed Workweek.

Furthermore, Poor (1973:ch.1) and Elbing et.al. (1974:18) emphasized that there were in excess of 3,000 firms on a re-arranged workweek in the United States, including service industries such as hospitals, (nurses only on 4 day week/3 day week, alternatively), insurance firms, banks, and schools. In addition, Carmel (1974:196) noted that in some of the European countries such as Switzerland, approximately 30% of the labor force is on Flextime. Elbing et.al. (1974:18), emphasized the importance of Flextime in Europe when they stated:

In Europe companies have usually adopted some form of a flexible working hours plan. Started in West Germany in 1967, the idea was picked up in Austria and Switzerland and even in Scandinavia. From there it spread southward to France Benelux, Italy, Spain and to the United Kingdom. Today, in West Germany alone, over 3,000 companies use some form of flexible hours; this directly involves over 1 million employees.

Elbing et.al. (1974:18-30) also emphasized that in North America in the 1970's, most attention has been focused around the implementation of a Compressed Workweek, but if North American experiences parallels Europe's, Flexible Hours may sweep the country in the next few years.

Other innovations in the arrangement of time have been considered, such as Time Banks, where a worker can build up credit hours by working as long as he likes in a given day. Once a certain number of credit hours has been

obtained, the worker is entitled to a paid vacation period. As yet no experimentation has been done in this area, but it presents interesting possibilities for reducing unemployment insurance due to seasonal conditions of work.

It is important to emphasize that there is still a very small percentage of Canadian workers and establishments on a work schedule that compresses 40 or more hours into less than 5 working days per week, which means a lengthened working day of more than 8 hours. Waisglass (1974:3) stated:

In most cases, the compressed workweek has been introduced by management for comparatively small work groups, in service type occupations and industries, and in the absence of a union.

However there is some evidence, that this trend is changing and many large labor groups are becoming involved in the re-arranged workweeks, as evidenced by reports and studies such as the Ontario Ministry of Labor report (1972), Goodale and Aagaard (1975), Elbing (1974), Nanus and Adelman (1971), Hellreigel (1972), Rempel (1974,1972), Ivaneevich (1974) Nord and Costigan (1973), Poor (1973), Hameed and Paul (1974). Similarly the demands from the international union, The United Auto Workers Union, (U.A.W.) emphasized demands for increased leisure for their members in 1976 negotiations with management.

Further evidence of this trend towards re-structuring the workweek can be seen in the public sector in Canada. A recent study undertaken by the Treasury Board in

Ottawa (1976) examined the effects of Flexible Hours upon government employees, who had been involved in this scheme for the past two years. Similarly, within the Provincial Government in Alberta, the Department of Education is also involved in experimentation with various re-arrangements in the management of time involving groups working under both Flextime incorporating some aspects of time banks and Compressed Workweek time allocations.

It is the spreading of interest towards these large labor groups within the public sector that provides the impetus for this study. As yet there is little information available concerning the impact of these time use organizational changes. This research focuses upon the impact of such time allocation changes within the various branches of the Alberta Department of Education.

STATEMENT OF THE PROBLEM

General Statement of the Problem

The major purpose of this study is to examine the effects of alterations in the structuring of the workweek upon the operation of an organization. The basic problem is to determine if there are any significant differences in the perceptions of the operation of the organization among and between management and non-management personnel involved in different workweek structures.

Specific Statement of the Sub Problems

From the foregoing general statement of the problem, the following specific statements were developed. These statements were used to provide direction for the general development of the study.

A) The following research questions were investigated in worksites utilizing one of the following time structures: Flextime, Standard Hours or Compressed Workweek.

1. (a) To what extent can job satisfaction variables be identified upon which the total personnel within these various workweek structures generally agree?

(b) To what extent are there differences in the level of job satisfaction between management/non-management personnel employed across these 3 time structures?

(c) To what extent are there differences in the level of job satisfaction between management/non-management personnel employed within any one of these time structures?

(d) To what extent can job satisfaction variables be identified upon which management and non-management personnel within a given workweek structure agree?

(e) To what extent do the total personnel within these various workweek structures agree on the discrepancy ranking of these job satisfaction items?

2. (a) To what extent are there differences in perceptions of organizational performance between management/non-management personnel employed across these three time structures?

(b) To what extent are there differences in perceptions of organizational performance between management/non-management personnel employed within any one of these three time structures?

(c) To what extent can organizational performance variables be identified upon which management and non-management personnel within a given workweek structure agree?

(d) To what extent do the total personnel within these various workweek structures agree on the discrepancy ranking of these organizational performance items?

3. (a) To what extent are there differences concerning family interaction and family relationships between management/non-management personnel employed across these three time structures?

(b) To what extent are there differences concerning family interaction and family relationships between management/ non-management personnel employed within any one of these three time structures?

4. (a) To what extent are there differences concerning participation in leisure activities between the total personnel employed across these three time structures?

5. To what extent are there differences in commuting patterns and travel arrangements among groups involved in different workweek structures?

6. To what extent is there a relationship between total personnel perceptions of job satisfaction within a specific

time structure and each of the following variables:

- a) Personal Variables - Age, sex
- b) Social Variables - Marital status
 - Number of children
 - Employment status of spouse
- c) Economic Variables - Income
- d) Educational Variables - Level of education

7. To what extent is there a relationship between the total personnel perceptions of organizational performance within a specific time structure and each of the following variables?

- (a) Personal Variables - Age, sex
- (b) Social Variables - Marital status
 - Number of children
 - Employment status of spouse
- (c) Economic Variables - Income
- (d) Educational Variables - Level of Education

B) Following research questions apply to one specific sub-population only.

(1) Flextime Sub Population

(a) To what extent have operating costs such as overtime, additions to staff, labor turnover, and absenteeism changed after the introduction of the specific re-arrangement in the workweek?

(b) To what extent has the introduction of Flextime

been associated with changes in the pattern of working hours of respondents?

(2) Compressed Workweek

(a) To what extent has there been a change in the amount, and patterns of consumption of participants in the Compressed Workweek structure?

(b) How are family responsibilities affected by longer working hours, e.g., who looks after children after school?

(c) To what extent have operating costs such as overtime, additions to staff, absenteeism and labor turnover, changed since the introduction of the Compressed Workweek?

(d) To what extent has the introduction of the Compressed Workweek been associated with changes in the pattern of working hours of respondents?

(3) Standard Hours Group

(a) For what reasons has this group not adopted one of these innovations in the management of time?

(b) What problems and limitations do this group see for themselves if a Compressed Workweek or Flextime was adopted?

ASSUMPTIONS

The researcher emphasized the following assumptions concerning the research design and data analysis utilized in this research study. First, it was assumed that the

respondents' replies to the questionnaire were independent judgments and truly reflected their own opinions.

Secondly, it was assumed that the Likert type scale used in section C of the Questionnaire contained interval properties. This was required for the statistical analysis of the data gathered.

LIMITATIONS

Because this study was concerned with the effects of a recent change it is possible that the results obtained were influenced by a Hawthorne effect. Cook (1969:199) presented the following definition of the Hawthorne concept:

The Hawthorne effect is a phenomenon characterized by an awareness on the part of the subjects of special treatment created by artificial experimental conditions. This awareness becomes confounded with the independent variable under study, with a subsequent facilitating effect on the dependent variable, thus leading to ambiguous results.

The relationship of this problem to educational research that undertakes an examination of an organizational innovation or change was further commented upon by Cook (1969:204) who stated:

Methodologically, the procedure followed by the illumination investigators is not unlike that often observed in educational research. A change is introduced and promising results are secured. This promising lead is followed up carefully by controlled experimentation to study more precisely

the effects of the change. The results are too often similar to those obtained in the illumination experiments. Regardless of what is done, we have difficulty in attributing observed changes in the dependent variable directly to the manipulated independent variable.

Because some of the respondents in this study, could see themselves representing an experimental group, namely those involved in innovations such as Flextime and Compressed Workweek, it is possible that the responses could exhibit the attributes of Hawthorne effect. However, because these groups have been working under these innovations for more than two years, it is likely that this effect will be minimal.

A second limitation arises because this study is concerned with perceptions regarding alterations in the workweek and therefore it is necessary to be aware of some of the problems involved in perception. Enns (1966:1) stated:

Perceptions are not simple accurate reproductions of objective reality. Rather they are usually distorted, colored, incomplete and highly subjective revisions of reality.

The difficulty in avoiding perceptual distortion needs to be emphasized, and it is quite probable that different members in an organization perceive the same event differently.

A third limitation of this study arises because the

data were gathered from only one government department, namely the Department of Education. These findings should be viewed as exploratory within this limited context and should not be taken as a basis for generalization to other government departments or to organizations in general.

DELIMITATIONS

The following are the delimitations of this study:

1. The study was delimited to the Alberta Department of Education. Not all branches were able to cooperate in the study as for example no data were available from the Alberta School for the Deaf.

2. The stratified random sample of respondents was delimited to all personnel who had worked for at least two months within a Branch of the Department of Education. Thus all respondents should have gained a reasonable degree of understanding of the operations of their respective branch.

DEFINITION OF TERMS

Compressed Workweek

This reduces the number of working days from the standard 5 days to 3 or 4 days. The number of hours per week remains unchanged which implies a proportionate increase in daily hours. This could also involve a longer work cycle such as fortnight or a month: in this case the term used is "Compressed Workweek Schedule." In some cases employees

alternate a 5 day/4 day week. For the purposes of this study the terms Compressed Workweek and Compressed Hours will be used synonymously.

Flexible Workweek

In this system there is a core period each day during which all the workers are required to be on the job, but both in the morning and in the evening there is a flexible time period (Flextime) during which the workers have freedom to come and go at anytime, provided they work the total number of required hours. For the purposes of this study the terms Flextime and Flexible Hours will be used synonymously.

Fully Flexible System. Within the time limits established by departments, employees are permitted each day to choose the time they prefer to start and finish work, so long as they work a prescribed number of hours.

Fixed Flexible Systems. With time limits established by Departments employees state the time they will start and finish work, subject to management approval. An employee is requested to start and finish work each day at the approved time for a prescribed period of a week, month etc. Sometimes these staggered hours partially overlap the hours worked by a second employee to facilitate communication and maintain continuity in the provision of service for a required period of time.

Reduced and Re-arranged Workweek

Here the week is shortened and the daily hours are also reduced. For example under the Ministry of Transport Regulations in Canada, airline pilots work a maximum of 120 hours per month and 1200 hours per year. (i.e., approximately 27 hours per week).

Time Banks

In this system of time allocation an employee can build up credit hours by working as long as he likes in a given day. Once a certain number of credit hours have been obtained, the worker is entitled to a paid vacation period.

Standard Hours

Standard Hours of work are laid down in provincial and federal labor legislation. For example, Carmel (1974:192) noted that most office workers in Canada worked approximately 37.5 hours per week in 1973, spread over five working days.

Paid For Hours

Paid For Hours of work reflect the actual cost of labor within a specific organization. In addition to the cost of Standard Hours ($5/37.5$), they also include the incidence of other costs such as overtime and bonuses.

Actual Hours

Actual Hours of Work reflect trends in economic

activity and account for the incidence of paid holidays, paid vacations and paid sick leave,

Organizational Performance

For the purposes of this study organizational performance is operationally defined to examine the following factors: (1) Organizational Communication; (2) Service to the Public; (3) Individual Output; (4) Work Scheduling and (5) Availability of Recreation Services.

Job Satisfaction

For the purposes of this study job satisfaction is operationally defined to examine the following factors: (1) Schedule Monitoring; (2) Individual Autonomy; (3) Organization of Work and (4) Changes in Work Routine.

Organizational Change

This study focused upon the impact of planned changes in the management of time within a government organization. Bennis and Chin (1969:33) defined planned change as "the conscious utilization and application of knowledge as an instrument or tool for modifying patterns and institutions of practice."

ORGANIZATION OF THE THESIS

A review of the literature and conceptual framework is presented in the following chapter. Attention is focused

upon historical trends in the hours of work, and recent studies of various impacts on organizations arising from innovations in the management of time. This is followed in Chapter 3 by a discussion of the research design, and the characteristics of the respondents involved in the study. Chapters 4, 5, 6, and 7 will be concerned with an analysis of the data and research findings. Finally, Chapter 8 will present a summary, conclusions, implications and recommendations for future research.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND A REVIEW OF THE RELATED LITERATURE

This chapter examines historical trends in hours of work in the 20th century, and emphasizes the potential for the implementation of various innovations in the management of time. Two approaches to the allocation of time are outlined in detail namely, Flextime and the Compressed Workweek. A conceptual framework is presented emphasizing the salient variables relating to the effects of alterations in the workweek upon job satisfaction and organizational performance.

Introduction

Toffler (1970:12) stated:

... that if the last 50,000 years of man's existence were divided into lifetimes of approximately sixty-two years each, there have been approximately 800 such lifetimes. Of these 800, fully 650 were spent in caves.

Only during the last seventy lifetimes has it been possible to communicate effectively from one lifetime to another -- as writing made it possible to do. Only during the last four has it been possible to measure time with any precision. Only in the last two has anyone anywhere used an electric motor. And the overwhelming majority of all the material goods we use in daily life today have been developed within the present 800th lifetime.

This 800th lifetime makes a sharp break with all past human experience because during this lifetime man's relationship to resources has reversed itself.

This quotation from Toffler illustrates clearly the rapid and continuous nature of change especially in the twentieth century. Education and educational organizations at all levels in North America provide clear evidence of this rapid pace of change. For example, the open school concept; differentiated staffing practices; teaching aides; individualized instruction; total immersion learning; teaching machines; computer assisted instruction; student power movements; wide use of media and technology; and new modes of administration such as regional offices, are just some of the philosophical, functional, technical and structural changes affecting educational organizations, in our society.

One of the most profound changes affecting many organizations in North America over the past several years has been the increased awareness on the part of employees, trade unions and administrators to re-examine established work patterns and time structures with a view to considering new approaches that are more compatible with changing life styles. Human resources writers such as Miles (1974) emphasize the need to recognize the demands of people for greater self-fulfillment in their personal life, involving participative decision making approaches to determine many

aspects of their work - and leisure - time allocations.

Historical Development

With the exception of the 5/40 workweek, few innovations in the management of time have been adopted in the 20th Century. However, in the mid-1960's new interest in innovations in time allocation and the potential for greater leisure emerged in North America. Hameed (1974:5-30) noted that part of the reasons for this renewed interest in increased leisure and innovations in the management of time, can be explained by an examination of the trends in standard, actual and paid for hours of work during the 20th Century.

Hameed (1974:7-30) emphasizes that since the turn of the 20th Century, Standard Hours have registered a steep decline, in the first two decades registering an annual reduction of .63 percent. In the post World War II period (1945-1956) the reduction was even greater, i.e., 1.44 percent per annum. The intervening span appears almost like a plateau extending over a period of 25 years (1929-44) and registered a very modest decline of .11 percent per year. Since 1957 a second plateau seems to have developed (see Table 1) although during this period there have been substantial increases in productivity that could have enabled a decrease in Standard Hours. The potential for this reduction is evidenced by the increase in paid for hours,

which involves labour time that is not directly productive.

Table 1
Historical Trends in Standard
Hours of Work

	1901 1919	1920 1944	1945 1956	1957 1969
Average Annual Percentage Reduction	0.63	0.11	1.44	0.14
Total Percentage Reduction	12.1	2.6	15.9	1.7

Source: Hameed, S.M.A. op.cit. p.8

Further comparison between "Hours Paid For" and "Actual Hours" worked as presented in Table 2, serves to illustrate the growing area of fringe benefits. For example in the post World War II period (1949-65) actual hours worked declined faster (10.11 percent) than hours paid for (4.85 percent), and this difference is accounted for by the growing incidence of paid holidays, paid vacations and paid sick leave. Hameed (1974:9) emphasized that:

This development may be regarded as a major shift in the workers outlook on work and leisure. Previously their main emphasis was on reducing the Standard Workweek which meant overtime earnings at the cost of leisure, but it appears that in the 60's their efforts were geared to reducing the effective workweek. This implies a reduction in

actual hours worked, accompanied by a higher incidence of paid leisure.

Table 2

Historical Trends in Standard, Actual
and Paid for Hours of Work

=====			
Percentage Reduction			
	1949 1960	1960 1965	1949 1965
Standard Hours	-7.55	-1.20	-8.67
Hours Paid For	-5.31	+0.49	-4.85
Actual Hours Worked	-8.05	-3.0	-10.11

Source: Hameed, S.M.A. op.cit. p. 8

Thus the trends in Standard Hours, actual hours, and paid for hours of work during the 1960's indicate the considerable potential for a reduction in the hours of work and/or a re-arrangement of the workweek incorporating innovations such as flexible working hours or a Compressed Workweek. During the late 1960's and early 1970's, administrators, trade unionists and employees became increasingly aware of the potential for restructuring the workweek. Many of the reasons underlying the generation of interest in Flextime are discussed by Golembiewski et.al. (1974:508) who noted:

... hours of work are a ubiquitous if mundane feature of much work, with which there is little experimentation. A subtle lock step exists in practice. Most people in most organizations begin work at the same time, and they finish at the same time or get a premium for working longer on the assumption that people's needs or life styles, are or should be, the same, day after day, week after week. The concept of work is such that both employees and their products are, or should be, uniform, predictable and definite.

Also many of the problems associated with the implementation of Standard Hours within an organization were outlined in the report by Golembiewski et.al. (1974:507) as follows:

... Standard times for beginning and ending the work day exposed employees to peak hour traffic and congestion, which were getting worse. Moreover, rather than come in late after oversleeping or tending to personal business, some employees took a full day's sick leave or absence when less time would have sufficed. Finally, apparently the normal schedule encouraged some down time, as when chemical reactions would not be started until the next day because they could not be completed before the normal end of a work day, and because there was no procedure for carrying forward credit for such extended work.

Thus for writers such as Elbing et.al. (1974) and Golembiewski et.al. (1974) flexible working hours offer many advantages for an organization.

Alternatively, the development of interest in other innovations in the management of time such as the Compressed Workweek can be found in the following industrial

statistics. An examination of industrial trends in Canada reveals that even though there are only a small number of firms operating on a Compressed Workweek, the number of firms has been steadily increasing. For example a study by Harrison et.al. (1971) found that of 152 Canadian companies surveyed only 17 had implemented a Compressed Workweek. One year later, Harrison (1972) found 76 firms out of 184 surveyed had adopted a Compressed Workweek. In addition Hameed (1974) noted that a Federal Government survey had listed 233 Canadian plants operating a Compressed Workweek.

AN EXAMINATION OF MODELS FOR THE ALLOCATION OF TIME

Two basic innovations in the management of time have gained widespread acceptance in a variety of organizations since the 1960's. These are: (1) Flextime, and (2) Compressed Workweek models. A number of variations, adapting these models to organizational settings have been implemented. The following discussion will examine some of the general principles incorporated in each of these models, and outline the approaches that have been employed in the Alberta Department of Education.

Flextime Models of Time Allocation

Golembiewski et.al. (1974:503-32) presented the following model of Flextime.

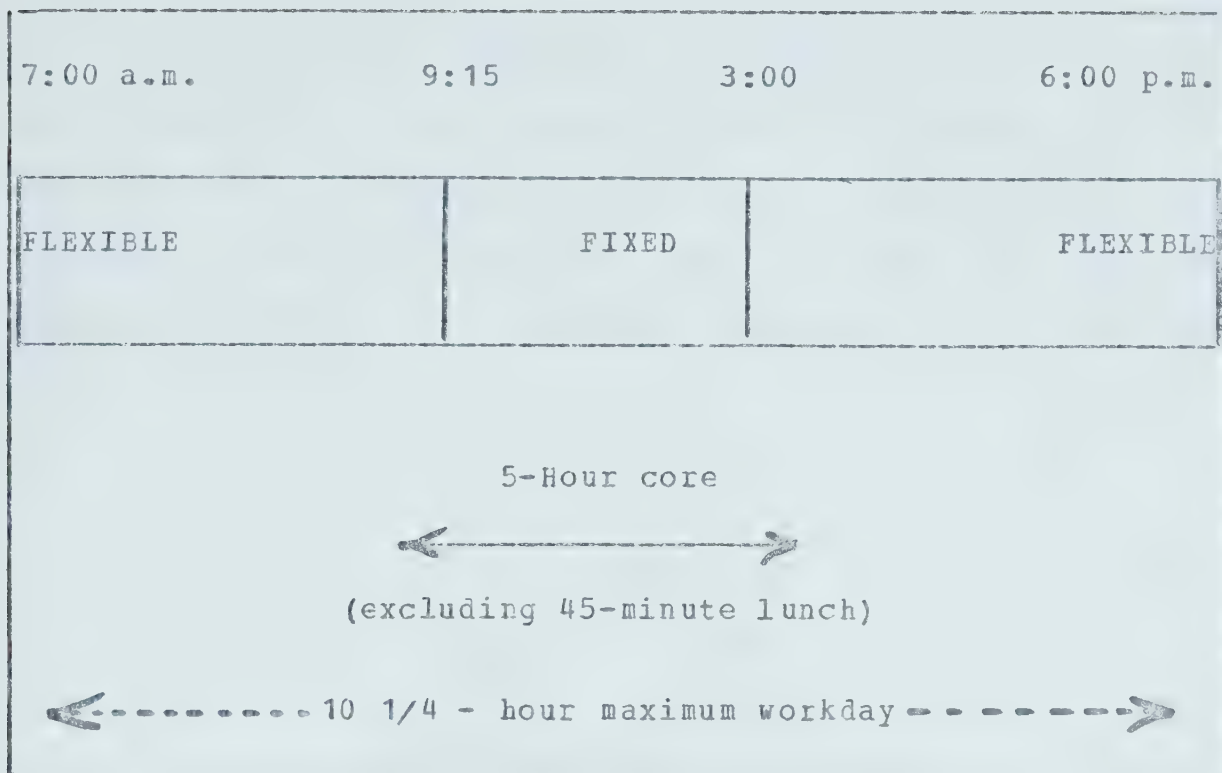


Figure 1

A Flextime Model

(1) The flexible work hours of employees were subject to work requirements of the department concerned, and the approval of the immediate supervisor. On occasion, the demands of the job or the preference of a supervisor may require that certain hours be kept. This would apply particularly if there was an interface problem with another department. (2) The lunch period was not flexible, and 45 minutes were allocated for this. (3) Hours in excess of 35 in a week may not be "banked" for a following week.

Alberta Department of Education Flextime Model

Many other variations of this Flexible model are operationalized in other organizations. For example, within the Alberta Department of Education the following model of Flextime is used in a modified form by most of the ten branches involved in Flextime experiments. This model is shown in Figure 2.

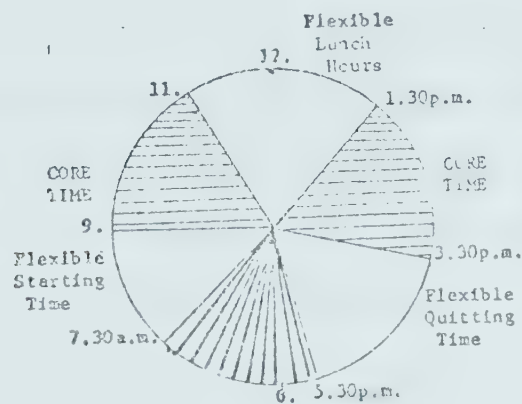


Figure 2

Alberta Department of Education Flextime Model of Time Allocation

The major differences between Golembiewski's model and this Alberta model are as follows:

(1) There is considerable flexibility in the lunch period with a possible maximum period of two and one half hours, with a minimum of 30 minutes as passed down by Department of Labor Regulations.

(2) Core hours (when all employees must be at work) will be between 9:00 a.m. and 11:30 a.m., and between 1:30 p.m. and 3:30 p.m.. Flexible hours will be between 7:30 a.m. and 9:00 a.m., between 11:30 a.m. and 1:30 p.m., and between 3:30 p.m. and 5:30 p.m.. Employees may make up required hours beyond core hours, during the flexible periods, subject to the condition that there is work to be done.

(3) As a general rule, all employees will be at work during the core hours of each work day of the week. Exceptions to this rule may only be occasional, and then only by special arrangement with the Directors of these various branches ,or their delegates.

(4) The coffee break of fifteen minutes each half day shall be maintained.

(5) Official business hours shall continue to be from 8:15 a.m. - 12:00 noon, and from 1:00 p.m. to 4:30 p.m..

(6) In order to maintain efficient service to the public, management shall have the option of requiring certain categories of employees to: (a) work during standard government office hours continuously. (b) work standard government hours for such periods of time during the year as deemed by management to be required for assuring efficient

service. (c) Work on a restricted flexible schedule (for example generally following a regular work schedule, but being allowed occasional flexibility as special needs arise): (d) Work on short-term predetermined schedules as necessitated by the work situation.

Time Banks

(7) A ten-hour carry-over, either in the way of a bank or a deficit will be allowed, and regular monthly salary shall be paid provided the employee's time is within these limitations. An employee may not accumulate a bank in excess of 10 hours and, if at the end of any month his/her deficit is more than 10 hours, he/she shall receive a financial deduction for those hours that are in excess of 10 hours.

(8) The banked hours may be taken, as time off with pay in subsequent months in any combination of hours up to a maximum of one working day. Time off must be in conformance with the needs of the work situation, and have prior approval of the Director of the particular branch, or his/her delegate(s).

(9) When time off with pay, in lieu of banked time, amounts to a full day, it shall not be taken in conjunction with a statutory holiday.

(10) When time off with pay, of less than one-half

day, is requested such time shall not normally be taken during core times.

(11) Authorized overtime hours worked outside of flex or core times may not be used to cover deficits arising from regular monthly work requirements.

(12) Time off for accumulated time shall be on a one-to-one hourly exchange.

Compressed Workweek Model of Time Allocation

Similarly to Flextime there are a number of variations in the application of the Compressed Workweek concept. Two of the major types of variations will be discussed, namely: (1) The Compressed Workweek, and (2) the Compressed Workweek Schedule.

(1) A Compressed Workweek Model of Time Allocation.

A traditional 4/40 workweek can most clearly be understood in a reference to a traditional standard 5/40 workweek system as outlined in Figure 3. In both cases organization members must work a 37.25 hour week as laid down in Labor Regulations. However these two models of time allocations can be contrasted as follows. Within the Standard Hours system approximately 7 hours 30 minutes are worked each day for 5 days to achieve the 37.25 total working hours required. Also a fixed one hour lunch break is usually incorporated into this 5/37.25 model. Alternatively, within

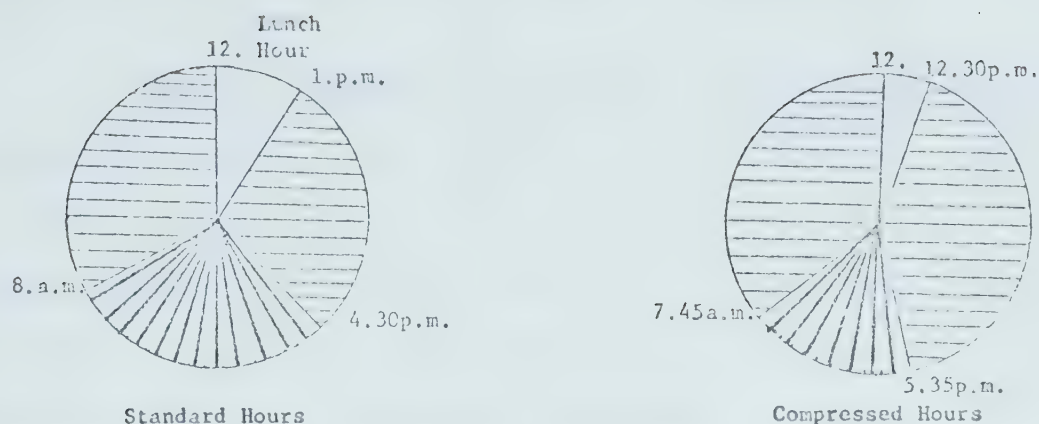


Figure 3

Compressed and Standard Hours Models of Time Allocation.

the Compressed Workweek Model employees must also work a 37.25 hour week. However this is achieved in 4 working days instead of 5 and thus the fifth day is available for leisure or alternative activities. In this Compressed Workweek model workers must work for approximately 9 hours 20 minutes each day for 4 days to achieve the total weekly hours required. This may involve any one, or all three of the following modifications in the working day:

- a) Earlier Starting Time
- b) Shorter Lunch Period
- c) Later Quitting time.

In the above model all of these aspects are

incorporated into the model to achieve the 9 hour 20 minutes working day required for the 4/37.25 hour week.

(2) An Alberta Department of Education Compressed Workweek Schedule. Many variants of the above Compressed Workweek model previously outlined are employed within organizations. For example, with the Alberta Department of Education, Finance, Statistics and Legislative Branch a specific form of a Compressed Workweek Schedule has been employed as follows. The hours of work are from 8:00 a.m. to 4:35 p.m. with half an hour for lunch for nine days with one day off during a two week period. This has the following results: (a) Each employee works 15 minutes longer than required every two weeks. Thus for the 2 pay days each month each employee is given fifteen minutes longer for lunch to compensate for this. (b) Efforts were made to provide constant service to the public by keeping the office open during lunch hours and staggering lunch hours. (c) Each section head is responsible for monitoring the attendance of each employee under his jurisdiction.

CONCEPTUAL FRAMEWORK

Planned organizational change is an extremely complex phenomenon, and as such requires complex theories to explain its efficacy. This study adopts a socio-psychological perspective, emphasizing the impact of this planned change upon the individual's perception of many

facets of the operation of an educational organization.

Job Satisfaction

Many attempts have been undertaken to study the concept of job satisfaction empirically, however there is still a considerable dissensus among researchers regarding a generally acceptable theory. This viewpoint is summarized by Locke (1969:309) who noted:

Despite the proliferation of studies our understanding of the causes of job satisfaction has not advanced at a pace commensurate with research efforts. For example, there is still confusion over whether the determinants lie solely in the job itself (the "intrinsic" view), whether they reside wholly in the worker's mind (the "subjective" view), or whether satisfaction is the consequence of an interaction between the worker and his work environment.

Herzberg's et. al. (1959) two factor theory serves to illustrate the "intrinsic" viewpoint. Herzberg differentiates between job content and job context. Porter and Miles (1974:551) stated:

The two factors themselves are known by many names. One has been called the hygiene factor, the maintenance factor, the extrinsic factor, the dissatisfiers, and the job context factor . . . The other has been called the motivator factor, the intrinsic factor, the satisfiers, and the job content factor . . .

Although there is some disagreement among experts concerning the interpretation of Herzberg's theory, it suggests that

the motivation factors or the intrinsic factors contribute more to job satisfaction than to job dissatisfaction, and the hygienic factors, or extrinsic factors, contribute more to job dissatisfaction than to job satisfaction.

Alternatively, the theories presented by Maslow (1954), Alderfer (1969), and McClelland (1961), provide examples of the "subjective" viewpoint of job satisfaction focusing upon human need fulfillment. Here the emphasis is upon the characteristics that the individuals bring to the work situation.

Finally an example of the "interactionist" approach is outlined by Vroom (1964) who attempts to link personal goals to organizational goals. Porter and Miles (1974:557) stated:

. . . the basic elements of the theory as it relates to the work situation are three: an expectation of the individual concerning whether more effort will lead to better performance; expectations concerning whether better performance will result in changing level of outcomes (positive or negative); and the value of or preference for, various outcomes.

Vroom's theory postulates that these factors interact to determine satisfaction and motivation.

There are many other theories of job satisfaction and all have their critics. However, despite the large number of empirical attempts to define job satisfaction, the following conclusions can be drawn: (a) job satisfaction has

been examined both as a global concept, i.e., "overall job satisfaction", and as a multidimensional concept, i.e. "satisfaction with various facets of the job environment", and (b) job satisfaction is generally regarded as an outcome not a determinant. Hellreigel (1972:46) emphasizes that researchers have investigated numerous facets of the job environment in these satisfaction studies. Similarly researchers involved in studying the impacts of innovations in the management of time have outlined a number of salient facets of the job environment for investigation in these studies. Many researchers such as Hellreigel (1972), Hameed (1974), Swimmer (1974) and Poor (1973) have discussed a number of effects upon the job environment associated with the implementation of a Compressed Workweek. Also researchers such as Golembiewski et.al (1974), Elbing et.al (1974) have outlined a number of facets of the environment contributing to worker satisfaction that are associated with the adoption of a Flextime model. A summary of their major findings is presented below.

(1) Improved Worker Morale. A study by Harrison (1972) cited that in 81 percent of the organizations studies worker morale improved. Similar results were found by the Ontario Ministry of Labor Study (1972), and the Dominion Loose Leaf Company Study (1972). Furthermore, a study of a school system in Stillwater, Minnesota (1975) showed students were reported to be extremely satisfied with that

particular Compressed Workweek arrangement. Also Prebble (1975:88-95) found that many students strongly supported the Compressed Hours program at Jordan High School.

(2) Reduction in Lost Working Hours. Golembiewski (1974:510) stated:

Although the flexible work-hour system does not explicitly provide for more work hours, it may minimize lost work hours. For example, in organizations with fixed working hours, employees frequently take time off for personal business, formally or informally. Under flexible work hours, time off for personal business is legitimate, but employees tend to take care of personal business on their own time.

(3) Increased Individual Autonomy. Herzberg et.al. (1959) has suggested a relationship between increased employee responsibility and job satisfaction. Also Katz (1968:432) emphasized the need for some degree of autonomy for organizational members when he stated "Accomplishment of functional contributions to a system requires a degree of autonomy from that system". Studies have shown that Flexible Working Hours have made a positive contribution to worker autonomy, because they are given the freedom, within limitations, to decide when they will arrive and depart from work. Swart (1974:26) commented that Flextime encourages "greater freedom autonomy, and recognition of individual differences among employees". Furthermore Swart (1974:26) stated Flextime contributes towards:

...greater participation in decision making and the spread of democracy in a work force, as non-managerial employees join the ranks of those managers having rights to flexible working hours.

...a reduction in employee fatigue as a worker adjusts his working to fit off job interests and responsibilities.

In addition Golembiewski (1974:510) noted: "Flexible hours may provide a better work climate for employees, thereby resulting in improved morale ... "

(4) Changes in Commuting Patterns. Marks (1974:5) noted that the first experiments with Flexible Hours occurred in West Germany in the 1960's as a measure to alleviate traffic congestion. This was also an important factor underlying the implementation of Flextime in various federal government departments in Ottawa in the 1970's. Thus the arrival and departure times of employees were spread over the Flextime periods rather than concentrated upon one starting and finishing time for most organizational participants. Also the potential for greater use of public transport facilities may contribute to decreased air pollution.

(5) Negative Effects of Time Keeping Devices. The psychological impacts of time keeping devices are emphasized by Golembiewski (1974:511) who stated that the positive effects of Flexible Hours may be diminished by the negative effects of requiring the use of a time chart. In addition,

Swart (1974:25) noted that there may be additional physical equipment purchases and costs associated with the implementation of time recording systems. For example, the Hengstler Time Keeping Device is commonly used in Europe where Flextime is operationalized.

(6) Perceived Threat to Management Control. Elbing (1974:28) commented:

Perceiving pressure from top management as a demand to 'control' subordinates, supervisors often take refuge in one of the oldest organizational myths -- presence equals performance. When all else fails, they can take comfort from insisting on attendance and punctuality. Under flexible working hours first line supervisors are deprived of recourse to this time honored tool, and are asked instead to trust their subordinates before they acquire the reassuring experience that the subordinates will honor the trust.

Golembiewski (1974:511) noted that the increased flexibility that employees have over their time allocation may be perceived by some managers as a threat to their control. Furthermore Golembiewski (1974:511) stated that "The flexible work schedule may require increased supervisory time and may divert supervisors from more important tasks." Similarly Swart (1974:25) noted, "Supervisors may lose some control over subordinates who arrive early or stay later than their superiors ... [and] confusion may be generated in firms operating two or more

shifts."

(7) Differences May Arise in Work Schedules. Swart (1974:25) emphasized that, "In very large and complex organizations, attempts to plan, organize and control work within a Flextime framework may prove to be cumbersome and costly." To illustrate the complexity of this problem further Werther (1973:82) noted:

The extent of flexibility is related to the degree of interdependence among jobs; highly autonomous positions such as clerk typist, janitor, bookkeeper, and others can utilize more flexible schedules. Production workers, bank tellers and those who are in teams or must meet peak customer demands can take advantage of only limited flexibility.

Organizational Performance

The complex problem of developing a generally acceptable model to evaluate organizational performance is outlined by Katz and Kahn (1966:52) who noted:

There is no lack of material on criteria of organizational success. The literature is studded with references to efficiency, productivity, absence, turnover and profitability -- all of these offered implicitly or explicitly, separately or in combination as definitions of organizational effectiveness.

The traditional way to study organizational performance has been to define effectiveness in terms of the degree of goal achievement. Etzioni's (1964:6) definition is commonly

cited: "An organizational goal is a desired state of affairs which the organization attempts to realize . . ." This goal approach has been critized by researchers such as Yuchtman and Seashore (1967:897) who argue that this approach ". . . has failed to provide a rationale for the empirical indentification of goals as an organizational property." Thus if the goals of an organization cannot be clearly distinguished, then the measurement of effectiveness is difficult, because the goal approach defines effectiveness in terms of the degree of goal-achievement.

Alternatively, the systems resource approach, defines effectiveness not with respect to the degree of goal achievement, but in terms of the ability of the organization to exploit its environment in the acquisition of scarce and valued resources. In this approach, the greater the ability of the organization to exploit its environment the greater its effectiveness. Proponents of this approach to organizational performance include Katz and Kahn (1966), Seashore and Yuchtman (1967), and Bowers (1968). However, Price (1972:8) presents some criticisms pertaining to the utilization of this systems resource model for effectiveness studies. Most importantly, the scholars who use the systems resource approach, emphasize the idea of "optimization" as an important component of effectiveness, but fail to explain clearly how optimization is to be measured.

A further problem related to the evaluation of organizational performance focuses upon the identification of a valid set of effectiveness measures. Steers (1975:547-9) who examined 17 multivariate models of organizational effectiveness noted that:

One of the most apparent conclusions emerging from a comparison of these multivariate models is the lack of consensus as to what constitutes a useful and valid set of effectiveness measures. While each model sets forth its three or four defining characteristics for success, there is surprisingly little overlap across these various approaches.

However, despite these problems in the search for definitive measures of organizational performance, research studies focusing upon the impact of alterations in the workweek and organizational performance, have identified a number of salient variables requiring further investigation. A summary of these findings is presented in the following section.

The Compressed Workweek and Organizational Performance

Within organizations operating some form of Compressed Workweek model researchers such as Poor (1973), Harrison (1972), Tandan (1974), Prebble (1975) and Carmel (1974) have discussed a number of effects upon organizational performance associated with the adoption of this innovation.

(1) More Intensive Use of Capital Equipment. Poor (1973) noted that the Compressed Workweek has long been used by a number of oil companies in their delivery division, and they have reported better use of trucks, more deliveries and/or miles per day. Within educational organizations, because of the large investment in capital equipment it is also feasible that extended hours (4/40) of operation would also result in more efficient use of school facilities, and lower operational costs.

(2) Decreased Absenteeism. It could be argued that the introduction of a Compressed Workweek has inherent advantages in reducing absenteeism, for example, one day absent in a 5/40 workweek, represents 20% of the total weekly work time, whereas one day absent in a 4/40 workweek represents 25% of the work time. Thus in the latter case the increased amount of income that may be lost could be a deterrent to absenteeism. In Harrison's study (1972) examining 184 industries operating a Compressed Workweek he reported a decrease in absenteeism in 50% of these companies. The Ontario study (1972) also reported decreased absenteeism as a result of this innovation in the management of time. Furthermore in the Edmonton City project (1972), it was reported that absenteeism due to sickness decreased after one year of trial. Again no specific data are available for educational organizations to refute or support

this trend. It should be noted that in other studies such as in the Winnipeg Imperial Oil Enterprises Refinery, (1973) sickness record was unaffected.

(3) Reduced Employee Turnover. A study conducted by Harrison et.al. (1972) notes a decrease in personnel turnover in 14.6% of the organizations that had adopted the Compressed Workweek, an increase in turnover 1.3% and no change 80.5% (and 3% were reported too early to assess). However in another study conducted in two ammunition manufacturing companies in Idaho by Henderson (1974) no change in turnover was reported. Finally, reduced turnover was reported as an advantage in some of the Ontario Government Study (1972) and in the Dominion Loose Leaf Company (1972).

(4) Increased Productivity and Earning. There is a considerable lack of consensus regarding the productivity and income benefits that accrue from a Compressed Workweek approach. The Harrison (1972) study cites increased earning and productivity for 21 firms (8.3%) of the sample studies, but no specific details were given relating to the nature of these productivity increases. No information was available from school organizations such as changes in pupil retention rates, or pass rates to gain any indication of possible changes in productivity.

(5) Moonlighting. One of the most controversial

issues concerning the introduction of a Compressed/Reduced Workweek involves the impact on the labor supply in general and the problem of multiple job holding. Some of the literature on a shorter workweek suggests that there is a high probability of multiple job holding adding to increased worker fatigue. Tandan (1974:53) commenting on the criticism levied by some economists when discussing Compressed/Reduced Workweeks noted:

The fears expressed at that time [depression]² were the same as are being voiced now, in relation to the 4 day week, namely (1) A reduction in workweek (now a switch to 4 day week) will lead to greater moonlighting by the worker because (a) the worker wants more income and (b) he does not know what to do with the extra time available. (11) Moonlighting will cause fatigue and adversely affect the workers' health thereby increasing absenteeism and reducing productivity at the principal job.

To examine the validity of these economists' criticisms, the issues of multiple job holding and worker fatigue and its relation to the introduction of a Compressed/Reduced Workweek, two sources of information are available: (1) Tandan (1974:51-64) has employed indifference curve analysis to determine if changes in the allocation of time would lead to multiple job holdings; (2) the results of

² Inserted by author.

empirical studies conducted in industry can be examined to test the validity of these theoretical predictions. Tandan (1974) presented the following indifference curve approach to attempt to predict the effects of a Compressed Workweek upon multiple job holding or "moonlighting".

Assumptions. In the following analysis three assumptions underly the utilization of this indifference curve approach to predict the effects on multiple job holding. They are: (1) Income and leisure are both normal economic goods, i.e., the worker will be better off with more income and/or increased leisure. Thus this analytic approach does not apply to a person with a negative marginal utility for leisure. (2) The worker is fully employed on his present job, i.e., he does not wish to work more or less than the existing organizational arrangements for work permit him to. (3) For any increase in wage, the income effect for leisure dominates, i.e., the worker is in the backward sloping region of his labor supply curve. Thus this approach would not apply to low wage workers whose needs for greater earning exceed their desire for more leisure.

Two cases will be briefly examined in this analysis. In the first case there will be a Compressed Workweek with no reduction in hours 4/40. In the second case a reduction in hours will be included, 4/32.

Situation I, 4/40. In Figure 4 presented below time

and income are represented on the X and Y axis respectively, with OA and OB representing the maximum leisure and income that the worker can achieve. AP represents the time devoted to essential non-market activities (NM) such as commuting. In the position of initial equilibrium S_0 , the individual works for L_0A units of time, $O L_0$ units of leisure, and $O Y_0$ units of income. Now, with the introduction of a 4/40

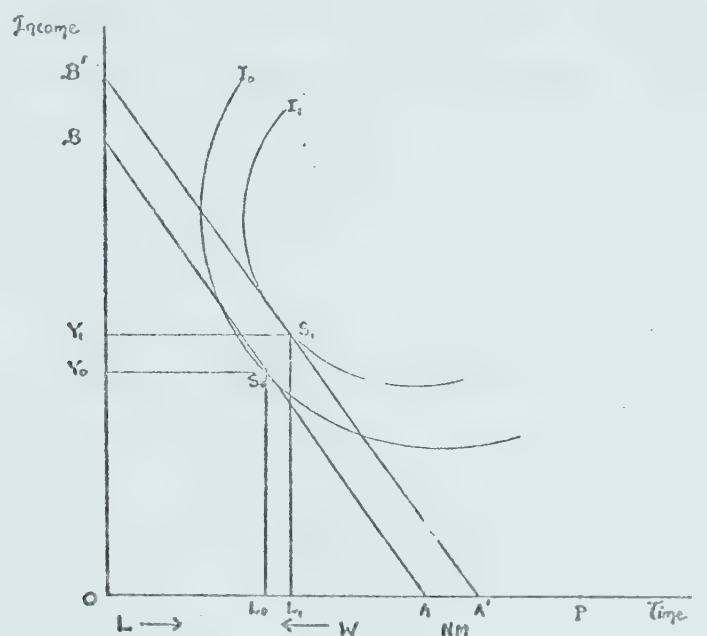


Figure 4

Indifference Curve Analysis for 4/40 Compressed Workweek

Compressed Workweek, the individuals' non-market time spent commuting will be reduced by say AA^1 . He can now devote this extra time to more leisure and/or more income, and this is reflected by the shift in his budget time to A^1B^1 . Thus the worker ends up at a new equilibrium point S^1 where he has L^0L^1 of additional leisure and Y^0Y^1 of additional income.

Thus it is found that the worker will supply more labor, if a 4/40 workweek is introduced. However, the actual amount of additional labor is small because AP itself is small (non market activity - commuting time).

Situation II, 4/32. In this case a reduction in hours without any corresponding decline in income, results in a higher wage rate as seen by the pivoting movement from AB to AB' in Figure 5 below. The immediate effect of this

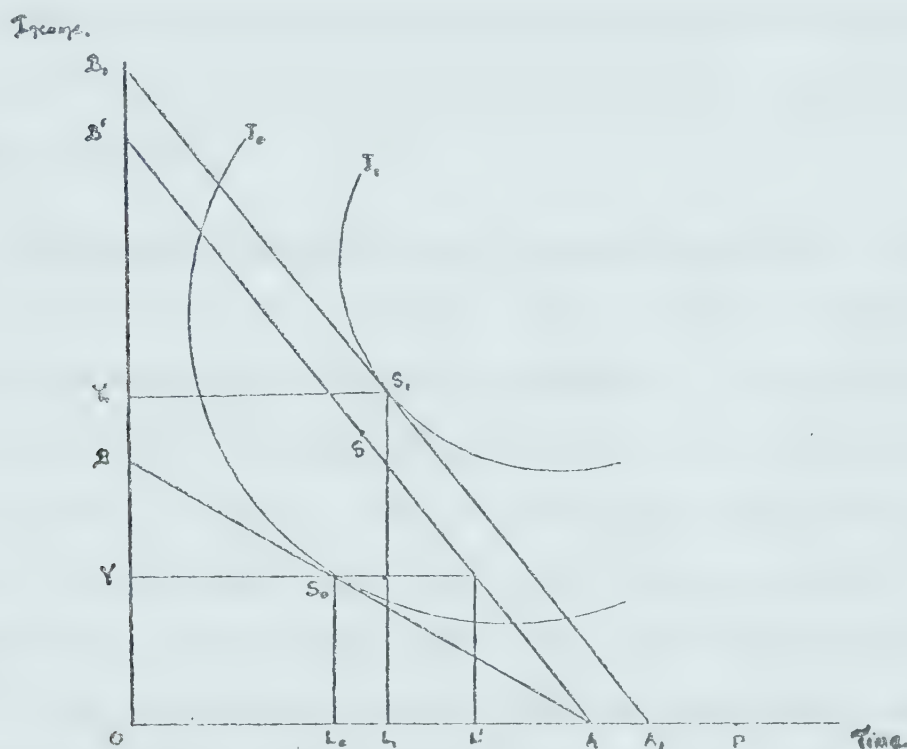


Figure 5

Indifference Curve Analysis for 4/32 Compressed Workweek

pivoting of the budget line is to indicate a new equilibrium position at S_1 where the worker would desire more income and more leisure. Furthermore, the saving in non-market time as

a result of less commuting would cause the budget line to move to the right to A_1B_1 . Thus a new final equilibrium is established at S_1 where the worker seeks OL_1 units of leisure, L_1A_1 units of work and OY units of income. Therefore a reduction in hours of work, say $4/32$ shall lead the worker to seek additional work. How much additional work effort he is willing to supply depends on the difference between his additional demand for leisure and his additional desire for work ($A - A_1$). Also if he now desires additional work he still has to find a second job that is acceptable to him, i.e., wage rate has to be such that he will substitute work for leisure.

Empirical Studies on "Moonlighting." Secondly, Tandan (1974: 59-61) reports on a number of studies that have been conducted in Canada to examine the impact of a Compressed/Reduced Workweek on demand for an additional job. Tandan (1974) reports that in one study conducted by Oil, Chemical and Atomic Workers International Union, 1800 employees were asked about their "moonlighting" experiences. Only 6 percent of employees had a part-time job. This increased to 8 percent when asked would they seek a part time job if they got more time off from their regular job. A further study conducted by Paul (1974) found that only 8 percent of the group studied hold additional jobs. Henderson (1974) reported a figure of 10% of respondents were in search of a second job, and one half of these indicated that

it was directly due to the fact that they were working only four days. Within education systems, the potential to undertake employment on the fifth day may be an important asset to students who are trying to cope with the "myth of free education." Many students already undertake part-time jobs that interfere with their studies, and this could enable them to make more suitable work arrangements. This potential for part-time work was utilized by some of the students surveyed by Prebble (1975:94). The extent to which teachers would desire to "moonlight" needs to be investigated because as yet no detailed information is available.

(6) Fatigue. It is important to note that in the Ontario study (1972) of six organizations that discontinued the Compressed Workweek, three did so because employees complained of the workday length. (4/40). Prebble (1975:97) found that the longer school days were significantly more tiring for some staff at the Jordan high school in Alberta. If this innovation in the management of time could be proven to produce excessive fatigue amongst students and/or teachers in the learning process, then it may be necessary to investigate the potential for greater reduction in school hours.

(7) Trade Union Opposition. This is an important cost as most trade unions will not support a 4/40 Compressed

Workweek because they consider it a retrograde step towards longer work hours. However the trade union movement will support a 4/32 workweek. Thus it is perhaps less noticeable if educational organizations moved in this direction, than many industries because many schools now operate on approximately a 5/34 basis. But again, public support is necessary before such a reduction in hours can be implemented.

(8) Interface with Industry and Customer Service.

The extent to which an industry can adjust to re-organized time schedules would depend to a large extent on the competitive strength of that industry and the impact that such re-organization has on its absolute and comparative advantage in domestic and/or international markets. Also problem in interface with other firms or clients, especially in areas such as shipping, receiving and sales has to be overcome in both of these markets. Thus the extent to which customers', or clients', demands can be satisfied in a manner that is at least as effective as in the past may severely limit the implementation of a Compressed Workweek operation.

(9) Problematic for Female Workers. Since WWII female participation rates in the workforce have continually increased in Canada. Carmel (1974:189) noted that the number of females in the Canadian labor force has grown from

238,000 in 1901 to 2,831,000 in 1971 which has been a much faster rate of increase than that of the female population of working age. During this same period of time, the female participation rate in the workforce has risen from 12.0 percent to 36.5 percent, with the greatest increase occurring in the post- 1955 period.

During the 1970's advocates for the improved status of women in our society are demanding changes that will lead to even greater female participation rates in the future. Carmel (1974:189) emphasizes that the changing length and structure of the workweek has been one of the important factors underlying the steady increase in female participation rates, and further restructuring of the workweek has been advocated as one way to facilitate the equality of sex roles in our society. However Carmel (1974:193) noted that in surveys conducted in industry where a Compressed Workweek (and extended workdays) had been adopted, the one group that has been consistently least satisfied has been married women, with young children at home. These mothers of young children find that their long work day extends beyond the time span of most childcare facilities, and that alternative arrangements for child care have to be made for this discrepant period of their working day. Also family conflicts with husbands who are on a five day workweek have been expressed by this group of women, to be a function of a Ccompressed Workweek.

Perhaps, some of the experiments in parts of Europe could provide insights into the resolution of many of the social problems related to a Compressed Workweek, and female participation in the workforce. For example, in Norway, the government is experimenting with the ending of sexual stereotypes, by having a couple share a single job, with the husband and wife working alternate weeks.

Summary. This discussion of the potential effects of a Compressed Workweek model upon organizational performance is not intended to be exhaustive as other effects such as improved personnel selection, space utilization, and costs such as increased tardiness, or resentment could also be discussed. However the above discussion does serve to illustrate that many claims in industry have been made outlining various effects upon organizational performance arising from the introduction of the Compressed Workweek. On the other hand even though some school districts and government education departments have implemented a Compressed Workweek Schedule, as yet no comprehensive research has been undertaken to examine the positive and negative pay-offs for educational organizations.

Flextime and Organizational Performance

Many researchers such as Golembiewski (1974), Hilgert and Hundley (1975), Marks (1974), Elbing et. al.

(1974), Swart (1974), and Werther (1973) have discussed effects upon organizational performance associated with the implementation of Flextime, and a summary of their major findings is presented below.

(1) Reduction in Overtime. Overtime may be reduced since some experiences indicate that flexible hours allow adjustments to variable work loads. Swart (1974:26) emphasized that there may be less need for overtime work since hours worked are more flexible.

(2) Reduced Absenteeism. Swart (1974:26) emphasized a reduction in absenteeism since employees can take care of personal business without using sick leave time or other paid company time - and still put in a full work day. Golembiewski (1974:510) also noted that sick time may be reduced. For example, individuals who oversleep can legitimately come to work, as opposed to calling in sick to avoid being recorded as late.

(3) Increased Productivity. Golembiewski (1974:510) noted, "Flexible hours may provide quieter periods permitting more concentrated work and thought ... " Productivity may increase, although this can only be measured by changes in attitudes about productivity. Some evidence indicates that employees on flexible hours are more inclined to stop work only after a task has been completed, thereby reducing start-up time on the following day and

avoiding unproductive time at the end of the work-day. Moreover, flexible work hours permit an employee to plan his work hours to coincide more closely with his most productive hours as in the cases of early or late "starters". Therefore, the hours an employee works may be more productive in terms of quality and quantity.

Similarly, Swart (1974:26) commented that there is more likelihood that the employee will leave work at a logical "stopping point" rather than slow down as the end of a typical working day approaches.

(4) Improved Organizational Climate. Swart (1974:26) commented that the introduction of Flextime may contribute to a more healthy organizational climate in which employees are more receptive to changes in organizational practices and procedures.

(5) More Effective Use of Corporate Facilities. Werther (1973:78) noted that with the introduction of Flextime:

Corporate facilities such as parking lots, cafeterias and locker rooms are less congested as are public roads adjacent to the office building or plant.

(6) Communications Problems May Arise. Golembiewski (1974:511) noted that:

Because core hours cover only five hours

a day, informal communications such as spontaneous meetings and phone calls, might be impaired.

Thus the availability of specific personnel for meetings and for spur of the moment discussions or phone calls may present some difficulties within the organization.

(7) Resistance to Standard Hours Systems.

Golembiewski (1974:511) suggested that once employees have experienced flexible working hours, many would be reluctant to return to a Standard Hours system. Thus a considerable amount of organizational dissatisfaction may be expected, should an organization revert to some Standard Hours form of time allocation.

(8) Problems in the Provision of Service to the

Public. Swart (1974:25) outlined a number of problems that may affect the provision of service to the public if Flextime is adopted within an organization.

Particular workers may not be available during certain hours outside of core time ...[and], although Flextime reduces distinctions among white collar workers, many service employees and blue collar workers in production jobs may be excluded from the plan.

(9) Increases in Operational Costs. Swart (1974:25)

noted that employees performing work functions over a greater span of hours may produce additional costs associated with energy and physical plant requirements.

Additional costs such as Hengslter timekeeping devices have been discussed previously. In addition it is necessary to calculate total hours worked over a selected period of time. If some form of Time Bank is incorporated into a Flextime model it is also necessary to calculate banks of hours worked each week, and calculating data on an ongoing basis, involves time and cost on the part of the employees.

Summary

Despite some potential limitations on organizational performance Elbing et.al. (1974) emphasize the growing interest in flexible working hours across North America, and their extensive introduction across Europe. The study undertaken by Golembiewski (1974) supported most of the advantages outlined above for Flextime, but much more research is needed in this area to confirm these findings.

Issues Exogenous to the Organization

Researchers such as Elbing (1974), Swart (1974), Poor (1973) and Rempel (1972,1974) emphasized that innovations in the management of time may also make a positive contribution towards the conduct of family and personal relationships, the utilization of leisure time and the level and pattern of consumption expenditure. A summary of their claims is presented below.

(1) Facilitates Effective Conduct of Family

Responsibilities. Swart (1974:26) noted that Flextime is an excellent vehicle for the recruitment and maintainance of female employees because of the time advantage for career women desiring to work who have family responsibilities at home.

Elbing et al (1974:29) stated:

If both husband and wife work, flexible working hours make it possible for them to arrange their schedules so that one of them can for instance be at home when the children get out of school.

(2) More Effective Use of Leisure Time. Swartz (1974:26) noted that Flextime may contribute to, "Harmony with that off the job cultural trend which provides for greater freedom of choice and discretion concerning use of time and pursuit of interests." Furthermore, Elbing et. al (1974:28) noted:

For the community, flexible working hours can lead to a more uniform use of recreational and support facilities. With spread out work peaks it is possible to ensure better use of golf courses, power and fuel supplies, traffic routes and even human patience.

Similarly, Remple (1974) emphasized the leisure potential associated with the adoption of a Compressed Workweek model of time allocation.

(3) Increased Consumption Expenditure. Poor (1973:231) noted that about one third of the workers in

studies she has conducted on Compressed Workweek models of time allocation, report 'spending more money on long weekends. However these changes in the level and pattern of consumption expenditure are perceived as a benefit to them because of the value and satisfaction gained from this extended leisure time. Also this increased expenditure may contribute to economic stimulation.

Some Concluding Remarks

Because these innovations in the management of time have only recently been introduced into North American organizations, as yet few evaluation models or strategies have been developed to measure the organizational changes resulting from alterations in the workweek. However Hellreigel (1972) presented a model for the evaluation of a Compressed Workweek, as illustrated in Figure 6. Basically Hellreigel presents a three step evaluation approach applicable to an organization considering the adoption of a Compressed Workweek. The first stage involves an examination of the effects of a Compressed Workweek upon the nature of the organization's processes (unit, batch or continuous). The utilization of capital and resources, customer response, competence consequences, legal implications and union opposition. If the results of the first steps are favorable, then stage two involves evaluating conditions relating to the employees. Hellreigel emphasizes communication between

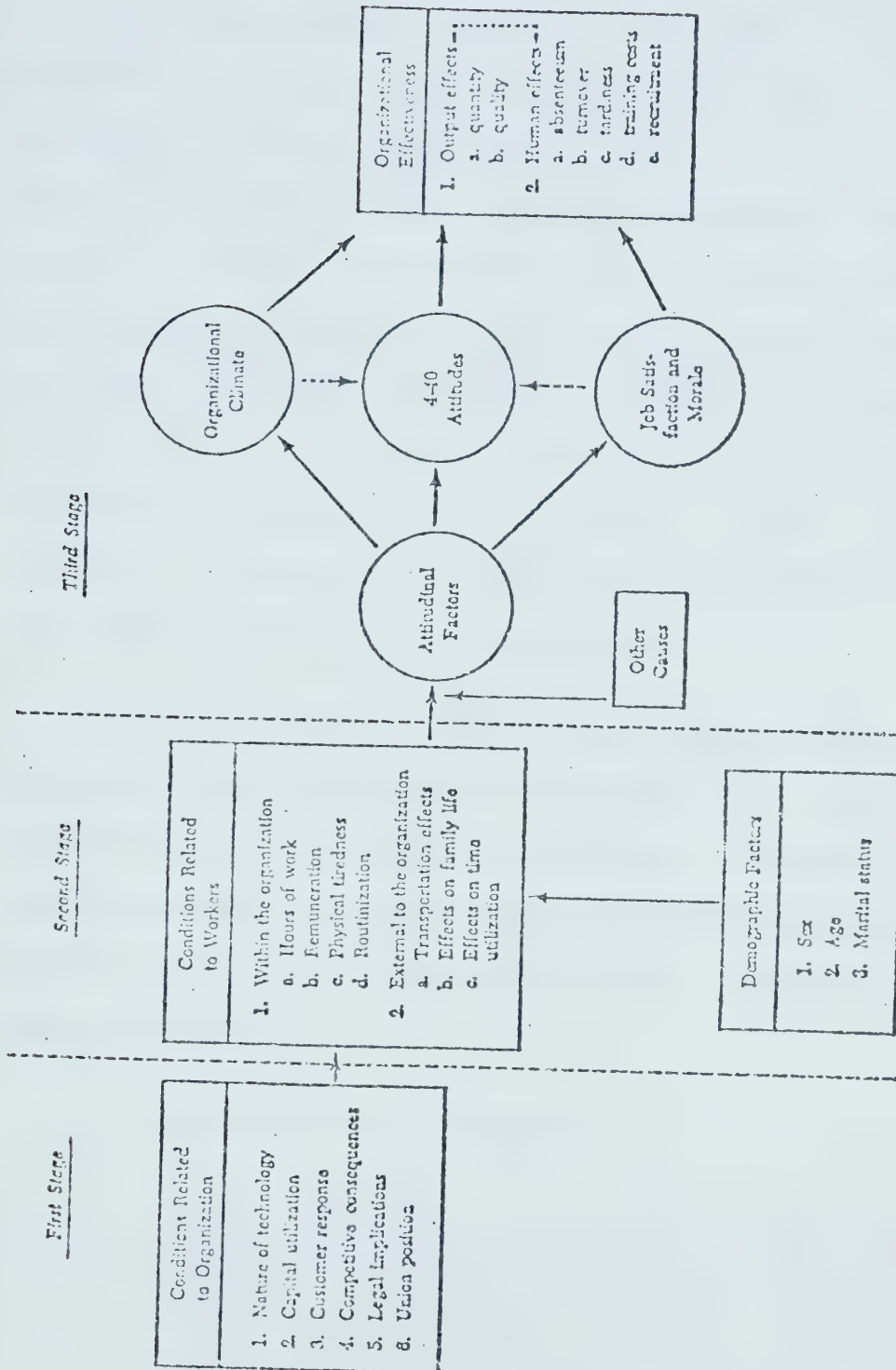


FIGURE 6

MODEL FOR EVALUATION OF THE 4-40 PLAN

Source: Hellreigel, D.

1972 "The Four Day Workweek: A Review and Assessment" op. cit., p.44.

administration and non-administration personnel to examine issues such as changes in the hours of work, remuneration, fatigue and boredom. Also it is necessary to discuss issues exogenous to the organization such as transportation effects, effects upon family life and use of leisure time. With open communication Hellriegel suggests that in stage three, worker attitudes to the plan could then be investigated concerning the proposed adoption of the plan, and their feelings about job satisfaction and morale. If all three steps are positive then the benefits associated with the Compressed Workweek may be more likely realized. But further re-evaluation is essential and necessary to see if the expected outcomes are achieved.

Within North America many organizations are still involved in a trial stage concerning the implementation of innovations in the management of time. However in Europe, many of the innovations have been implemented since the mid 1960's and Flextime has continued for almost a decade in West Germany.

Marks (1974:6) commented:

The concept of flexible hours has gradually expanded to other countries in Europe and similar experiments have been made in Switzerland, France, Belgium, the Netherlands, Sweden, Denmark, Norway, Finland and Spain. The experiments are generally regarded as positive.

The findings of this study should also provide additional information concerning the impact upon governmental organizations in Canada arising from alterations in the workweek and hence data on which final adoption decisions may be based.

CHAPTER SUMMARY

In this chapter an attempt has been made to outline how the trends in standard, actual and paid for hours of work are providing an impetus for a reconsideration of the 5/40 workweek as an acceptable model for the allocation of time in a work situation. Furthermore during the 1960's and 1970's many alternative models for the management of time have been developed, and various claims relating to the effects upon organizational operations associated with these models have been made from limited industrial experience and research. The conceptual framework was designed to emphasize some of the areas that will be investigated in this research undertaking.

Finally, it should be noted that during the recent recession 1973-76, because of the high unemployment and inflation problems, industrial attention has focused away from innovations in the management of time. On the basis of the trend in the period 1975-76, one could speculate that once the upswing in the trade cycle is firmly established,

attention may again be focused upon increased leisure and changes in organizational time structures. Furthermore, if wage and price controls persist in the foreseeable future, workers may demand increased leisure as "payment" for increases in productivity, assuming that other fringe benefits are reaching saturation point.

This viewpoint is well illustrated by Max Kaplan, Director of the University of Southern Florida's Leisure Studies Program (1973:39) who stated:

The normal extension of automation has reduced work hours roughly from 70 to 37 in the past century, or almost 4 hours per week by the decade; thus an additional reduction of 12 hours by 2000 A.D. ... is now intensified by computerization so that the new time off weekly could be 5 hours in the '70's, 6 in the 80's, 7 in the '90's. The result could be a workweek of 20 hours at the century's end.

CHAPTER 3

RESEARCH DESIGN AND DESCRIPTION OF THE SAMPLE

This chapter commences with a discussion of the importance of this study of the effects of alterations in the structuring of the workweek. This is followed by an examination of the sources of data, focusing upon the methods used to select the sample of respondents, and the development and the testing of the instrumentation used in this study.

A brief reference is made to the statistical techniques used in analyzing the data and the chapter is concluded with a presentation of a comparative profile of the characteristics of the respondents that were selected in the stratified random sample.

IMPORTANCE OF THE STUDY

During the 1970's innovations in the management of time have spread from small businesses to large government departments and multinational corporations, but as yet little information is available concerning the nature of changes in organizational operations that have been associated with these innovations.

In the early 1970's, innovations such as a Compressed Workweek and Flexible Working Hours have been introduced into various branches of the Alberta Department

of Education on a trial basis. In 1976 this department decided to undertake a study to examine the effects that these alterations in the workweek have had upon the operation of this organization. As a result this study is undertaken with the assistance of the Alberta Department of Education to examine the impacts upon organizational operations arising from the introduction of these innovations into various branches of this government department.

SOURCES OF DATA

Within the organizational structure of the Alberta Department of Education the following branches can be identified, as incorporating various structures of working hours. (See Figure 7 - Appendix H)

Group 1 - Flexible Working Hours

- a. Special Education, Guidance and Counselling, Special Educational Services.
- b. Registrar's office.
- c. Student Evaluation Data Processing, Testing and Development.
- d. Alberta Correspondence School.
- e. Early Childhood Services.
- f. Curriculum.
- g. Audio Visual Branch.
- h. Communications Branch.
- i. Personnel Services Branch.

Group 2 Compressed Work Week

- a. Finance, Statistics and Legislation.

Group 3 Standard Hours

- a. School Book Branch
- b. Alberta Education Communication Authority
- c. Educational Opportunities Fund
- d. Field Services
- e. Planning and Research
- f. School Building
- g. Deputy Minister's Office
- h. Minister's Office
- i. Alberta School for the Deaf

Within this organization, this study focused upon the perceptions of management and non-management personnel concerning the effects of alterations in the workweek within these various branches. Data relating to these perceptions were obtained from three major sources:

1. Questionnaire Data
2. Interview Data
3. Documents

SELECTION OF THE SAMPLE

Within branches previously outlined for reasons of

economy and effort¹ it was decided to obtain a stratified random sample of respondents from within the branches that were able to participate in this study.

Plutchik (1968:75) stated:

The advantage of stratifying a population before taking the sample is that the chances of picking a very deviant sample are less and estimates of population values are therefore more precise than would be the case with a simple random sample of the whole population. The major limitation of stratified random sampling is that it requires advance knowledge of the strata within the population.

For the purpose of this study two strata were identified as providing an important basis for the selection of the sample

(1). It was important that data should be obtained from all branches that were able to participate in the study.

(2). Within the branches that were able to participate in the study, it was important to gain opinions from both administrative and non-administrative personnel.

1. Selection of the Stratified Random Sample of Respondents Used for Questionnaire Data

¹It should be noted that it was not possible to gain data from the total population within the Alberta Department of Education because the Alberta School for the Deaf was not able to be included in this study.

In Tables 3, 4 and 5 the details of the selection of the stratified random sample are presented. Within the three identified groups of branches a stratified random sample of approximately 85 percent of all respondents was selected for the study. This proportion was chosen so that a sample greater than 30 could be obtained for the Compressed Hours group. This same proportion was then applied to the remaining two groups. A computerized personnel listing for the month of September 1976 was obtained for each branch and a table of random numbers was applied to this listing to derive the stratified random sample. The personnel listing for September 1976 was selected for this study because data were not gathered until October and therefore all respondents selected in the sample would have had at least one month's experience in the branch before responding to this instrumentation.

Standard Hours Group. With this group the population consisted of 98 management personnel and 105 non-management personnel. From this population involving 8 branches of the Alberta Department of Education, a stratified random sample was selected comprising 79 management personnel and 85 non-management personnel. This information is presented in Table 3 where it can be seen that 132 useable questionnaires were returned from this sample.

Flextime Group. Table 4 shows that the population consisted of 46 management and 286 non-management personnel.

Table 3

Selection of Stratified Random Sample for Questionnaire Respondents - Standard Hours Group^a

Branch	Population ^b			Random Sample		Questionnaires		
	Filled M	Positions NM	Total N	M	NM	Total Returns	Useable Returns	Percentage of Sample
School Book Branch	1	44	45	1	36	30	30	22.9
Alberta Education Communication Authority	2	1	3	2	1	3	3	2.3
Educational Oppor- tunities Fund	2	1	3	2	1	3	3	2.3
Field Services	77	40	117	62	32	71	70	52.7
Planning & Research	7	4	11	5	3	8	8	6.1
School Buildings	3	11	14	2	8	10	10	7.6
Deputy Minister's Office	4	2	6	3	2	5	5	3.8
Minister's Office	2	2	4	2	2	3	3	2.3
N	98	105	203	79	85	133	132	100.00

^a Alberta School for the Deaf did not partake in this study.

^b Personnel listing as of September 1, 1976 used to select sample.

Table 4

Selection of Stratified Random Sample for Questionnaire Respondents - Flextime Group

Branch	Population			Random Sample		Questionnaires		
	Filled M	Positions NM	Total N	M	NM	Total Returns	Useable Returns	Percentage of Sample
Personnel Services	2	5	7	2	5	7	7	3.1
Special Education	8	5	13	6	4			
Special Education Services	a 1	3	4	1	3			
Guidance & Counselling	1	2	3	1	2	8	8	3.5
Early Childhood Services	12	6	18	9	4	12	12	5.3
Alberta Correspondence School Curriculum	4	146	150	3	120	98	98	43.4
Audio Visual Services	10	14	24	8	12	17	17	7.5
Communications	-	28	28	-	22	14	14	6.2
Testing & Development	2	4	6	2	4	6	6	2.7
Student Evaluation and Data Processing	-	10	10	-	8	8	8	3.5
Registrar's office	4	53	57	3	41	44	44	19.5
	2	10	12	2	10	8	8	5.3
N	46	286	332	37	235	226	226	100.00

a All divisions of the Special Education Branch.

b All divisions of the Curriculum Branch.

c All divisions of Student Evaluation Branch.

a All divisions of the Special Education Branch.

b All divisions of the Curriculum Branch.

c All divisions of Student Evaluation Branch.

Table 5
Selection of Stratified Random Sample for Questionnaire Respondents - Compressed Workweek Group

Branch	Population		Random Sample		Questionnaires		
	Filled M	Positions NM	Total N	M	NM	Total Returns	Useable Returns
Finance, Statistics and Legislation	6	45	51	5	36	38	37
							100.00

From this population 37 management and 235 non-management personnel were selected in the stratified random sample. Furthermore 226 useable questionnaires were returned from this sample.

Compressed Work Week Group. The information contained in Table 5 shows that the population consisted of 6 management and 45 non-management personnel. From this population the stratified random sample derived 5 management and 36 non-management personnel. From this sample 37 useable questionnaires were returned.

2. Selection of Respondents for Interview Sample

Additional data were gathered in this study by conducting a series of interviews with key personnel within the organization. Within the non-management classification experienced personnel were identified with the assistance of the Directors of these various branches.

Flextime Group. At each worksite involving some form of flexible working hours in-depth interviews were conducted with both management and non-management personnel. Table 6 shows that a total of 10 management and 14 non-management interviews were conducted at these worksites.

Compressed Workweek Group. At the worksite incorporating a Compressed Workweek system interviews were conducted with 2 management and 2 non-management personnel. This information is also presented in Table 6.

Table 6

Sample of Respondents Used for Interviews

	<u>Management</u>	<u>Non Management</u>
<u>1. Flextime Group</u>		
(a) Special Education, Guidance & Counselling, Special Education Services	3	3
(b) Registrar's office	1	1
(c) Student Evaluation, Data Processing, Testing and Development	1	2
(d) Alberta Correspondence School	1	3
(e) Early Childhood Services	1	1
(f) Curriculum	1	1
(g) Audio Visual Branch ^a	-	1
(h) Communications	1	1
(i) Personnel Services	1	1
N	10	14
<u>2. Compressed Workweek Group</u>		
(a) Finance, Statistics and Legislation	2	2

^a Administered by Curriculum Branch.

Standard Hours Group. Within the questionnaires administered to this group, a number of open ended questions were included to gain in-depth opinions concerning attitudes towards the potential adoption of innovations in the management of time.

3. Selection of Respondents for External Perceptions of Service to the Public

In addition to the above mentioned samples of respondents, a further small survey was undertaken to examine the perceptions of clients who have had regular long term contact with the branches involved in these innovations in the management of time. With the assistance of the Directors of these branches a sample of 8 clients were identified within each innovative category and a questionnaire was administered to these groups. From this sample of 16 respondents, 50 percent of the questionnaires were returned.

DATA COLLECTION DESIGN

Instrument Selection and Development

Two instruments were employed to gather data to measure respondents' perceptions concerning the effects upon the organization associated with alterations in the structuring of the workweek: (1) Hours of Work Questionnaire; (2) Hours of Work Interview Schedule. In addition to this instrumentation, additional data relating

to changes in operational costs were obtained from government documents.

(1) Hours of Work Questionnaire

A search of available instrumentation revealed that no one previously validated instrument was available that would be directly suitable for the needs of this study. However, an examination of a number of instruments that had been employed in studies of a similar nature such as Golembiewski (1974), Poor (1973) Ottawa Treasury Board Study (1976), Hellreigel (1972), and Faunce (1963) contributed to the development of a pool of items that were suitable for use in this study.

However, before these items could be utilized in the questionnaire in this study it was necessary to conduct a pilot study on the suitability of this item pool, in order to validate the instrumentation.

Pilot Study and Validation of Hours of Work Questionnaire

Pilot Sample. This pilot study focused upon the perceptions of Alberta Provincial Government employees concerning the hours of work arrangements that are currently in operation in their respective departments. With the assistance of the Director of Personnel Administration for the Alberta Provincial Government it was decided to collect data from the following departments of the Provincial Government for this pilot study.

Pension Board. The Pension Board was chosen because employees in this department had been working on a Flextime program since December 1973.

Department of Transportation. Secondly, the Department of Transportation was selected because employees in this Department had been working on a Compressed Workweek program since March 1972.

Department of Social Services. Finally, the Department of Social Services was selected as a Standard Hours group. No innovations in the management of time have been introduced in this department.

Within each of these departments a payroll listing was obtained from the Director. From these payroll listings a random sample of 45 persons was generated from each department by applying a table of random numbers to this listing. Data were then gathered from each of these departments, with the co-operation of the respective Director, and the following figures for useable returns were obtained³ as outlined in Table 7.

Validation of Instrumentation. The data gathered from this pilot study using the Hours of Work Questionnaire,

³In most cases there were approximately 10 - 12 persons absent or unavailable upon the day data were gathered from each department.

Research Sample for Pilot
Study on Instrumentation

=====		
Respondents	Number	Useable Returns

Pension Board	45	33
Department of Transportation	45	35
Department of Social Services	45	33

were examined to test the validity of the instrument. Kerlinger (1964:444) presents a common definition of validity where the emphasis is on what is being measured. The basic tenet is: Are we measuring what we intended to measure?

Kerlinger (1964:444-462) discusses a number of types of validity and each of these methods of validation will be discussed in relation with this pilot study.

Face Validity. Garret (1960:355) stated that: ". . . a test is said to have face validity when it appears to measure whatever the author had in mind, namely what he thought he was measuring." Obtaining the judgements and opinions of other interested researchers in this area is very useful in contributing to the face validity of instrumentation. In this instance, the Hours of Work Questionnaire was examined by a panel of researchers from the Department of Planning and Research who provided some useful feedback on the item pccl. In addition, the Doctoral

Committee supervising this research also examined the instrumentation and provided some helpful suggestions to improve the face validity. For example a number of minor modifications were made to the wording and phraseology used for many of the bank of items used in this study.

Content Validity. Content validity refers to the sampling adequacy of the relevant content of a measuring instrument. As mentioned earlier this instrument was developed from a wide variety of instruments that have been employed to gather data in studies in related areas. Thus the content and face validity can be asserted to have been reasonably established on the basis of this instrumentation and an extensive literature review. Kerlinger (1964:446) noted that content validity consists essentially in judgement, and the pool of items were essentially developed from the collective judgements of other researchers, and writers in this field. Two additional items were added to the Compressed Workweek questionnaire after the pilot study to examine: (1) the impact of the Compressed Workweek on consumer spending habits, and (2) the effect upon child minding arrangements.

Construct Validity. Kerlinger (1964:449) stated that:

The significant point about construct validity, that which sets it apart from other types of validity, is its preoccupation with theory, theoretical constructs, and scientific empirical enquiry including the testing of

hypothesized relations.

Factor Analysis. Thus as part of the pilot analysis to examine the construct validity some factor analysis was undertaken to determine if any factors could be identified to account for differences between groups in test performance.

Factor analysis was undertaken for the pool of items used for the questions relating to job satisfaction and organizational performance. These factor loadings, are presented in Appendix A. The factors identified in this pilot analysis, together with the factor loadings obtained in the major study, were only used as a basis of classification in later analyses of job satisfaction and organization performance data.

Correlation Analysis. Furthermore some correlation coefficients were obtained to examine the validity of the items contained in the personal data sheet. The variables contained in the personal data sheet were correlated with scores obtained on items concerning job satisfaction. For the continuous variables Pearson correlation coefficients were utilized. The variables included in the question on job satisfaction were numbered for the purposes of this analysis and a listing of this numbering system is contained in Appendix A. The correlation statistics reported in Appendix A indicated that for each of the continuous variables used in the pilot study a number of significant correlations were

established at a .05 probability level.

Thus it was decided to retain all of these personal variables in the final questionnaire and to make one addition, i.e., length of employment in the relevant government departments.

Scheffe - One Way Analysis of Variance. Finally in the pilot study, the items presented in the questions relating to job satisfaction and organizational performance were examined to analyze the extent to which this pool of items discriminated among the 3 groups of respondents. A summary of the obtained significant differences between mean scores for these 3 groups is presented in Appendix A.

For the items contained in the question on job satisfaction statistically significant differences were found between at least one pair of means for 6 out of the 10 items. Alternatively, for the question on organizational performance, in summary significant differences were found between at least one pair of means for 8 of the 19 items used in this subsection. It is considered that more differences MAY have been found had it not been for a possible contamination effect of the second section of the Likert scale that was used, in this pilot study. During this pilot stage, no attempt was made to differentiate between the direction and importance of changes in organizational performance.

Thus, in the final form of the questionnaire this scale has been modified so that it now measures both the nature of change and the perceived importance of any change in organizational performance. Copies of the questionnaires used in this study are contained in Appendix B.

(2) Hours of Work -- Interview Schedule

In addition to the questionnaire data, additional information was obtained from a series of semi-structured interviews, involving both management and non-management respondents.

During the pilot study only 6 interviews were conducted with administration and non-administrative personnel. A schedule of the interviews conducted in the pilot study is presented in Table 8.

Table 8

Schedule of Interviews Conducted in Pilot Study

	Administrators	Non Administrators
Pension Board	1	1
Social Service Department	1	1
Transportation Board	1	1

On the basis of information gained from this pilot test of the interview schedule a number of minor modifications were made to the phraseology and organization

of some of the questions. The sources of information previously outlined were also employed in the designing of the interview schedules.

The interview schedule consisted of a series of closed and open ended questions (Appendix C). Also a tape recorder was used in the interview situation to provide the details for respondents' answers to the open ended questions.

(3) Operational Cost Analysis

In addition to the data obtained from the instrumentation previously outlined, some additional data were obtained concerning operational costs associated with alterations in the structuring of the workweek.

Labor Costs. The research design sought to obtain some statistical data from government personnel records relating to the following aspects of labor costs:

- 1, Paid Absences for Employees.
2. Labor Turnover,
3. Additions to Staff,
4. Arrival and Departure Times, and
5. Overtime Costs.

STATISTICAL TREATMENT OF THE DATA

The statistical analysis undertaken for this study involved the use of both inferential and descriptive

statistics. Descriptive statistics simply involve numerical description of a group, and no conclusion could be extended beyond the group. Descriptive statistics such as frequencies and percentages distributions were employed to examine the personal characteristics of each group of respondents. On the other hand, inferential analysis used a statistic computed from a sample to estimate the parameter of a population. It is assumed that within a margin of error the randomly selected sample approximates the population.

The importance of inferential statistics is outlined by Ferguson (1971:10):

Unless the intention is to generalize from a sample to a population, unless the procedures are such as to enable such generalizations, justifiably to be made, and unless some estimate of error can be obtained, the conduct of experiments is without point.

For the purposes of this study random samples were selected from three populations, namely Flextime, Compressed Workweek and Standard Hour groups and inferential statistics were employed with the intent of making inferences about the population parameters on the basis of sample statistics.

Information obtained from inferential statistics always involves the possibility of sampling error. Sampling error arises when the characteristics of one sample are not identical with the characteristics of the population. To overcome this problem, the researcher can apply a test of statistical significance, which indicates the probability

with which the differences between samples can be attributed to differences in the population rather than sampling error. To be objective the significance level should be set before the statistical analysis is undertaken. The setting of a significance level is an individual matter for the researcher, and it depends upon the type of situation and the importance and practical significance of the findings. For the purposes of this study findings that differed between groups with a probability level less than or equal to .05 were reported as being "significant." This infers that there is a 95 per cent chance that differences indicated on the samples did not arise as a result of chance error in random sampling, but rather the differences could be inferred to exist in the population. Probability levels were also reported at the .01 level of significance.

In the computer analyses of the data the SPSS -- Version 6.02 Statistical Program (Statistical Package for the Social Sciences) was used to determine the frequency and percentage of responses for each item of the questionnaire, for each sample of respondents.

An analysis of variance ANOV 15 (Division of Educational Research Services) was applied to the data to determine the mean scores and variances for each sample of management and non-management responses to the questions relating to job satisfaction and organizational performance. Scheffe Multiple Comparison of Means Test was used to

determine significant differences between the groups' responses for each item.

For all respondents involved in a specific workweek structure the DESTO 5 statistical program (Division of Educational Research Services) was used to calculate Pearson correlation coefficients for the continuous variables from the personal data section of the questionnaire, with each of the items related to job satisfaction and organizational performance.

Within each sample of management and non-management personnel the ANOV 10 statistical program was used for t-tests to calculate significant differences between the mean scores relating to job satisfaction and organizational performance.

DESCRIPTION OF THE SAMPLE

The response categories for the items included in the personal data sheets for each group of respondents were considered to be ordinal in nature. Frequency and percentage distributions were determined for all groups of respondents for each response category within each item. The percentage distribution of responses can be used to provide an indication of the strength and direction of the responses for each of the variables included in the personal data section of the questionnaire.

A clause was included on the front page of the

questionnaire that stated if any question was considered to be an invasion of privacy by the respondent, then that particular item could be left unanswered. For this reason within each group the number in the sample that responded to any particular question in the personal data sheet sometimes varied. In the following tables that describe the characteristics of the respondents, the size of the sample (N) has been reported in all cases.

A Comparative Profile of Respondents Selected for This Study

As outlined previously, the Standard Hours sample consisted of 132 respondents, and the Flextime sample involved 226 respondents. Alternatively, the total Compressed Workweek sample comprised 37 respondents. The number of respondents in this group was much smaller than the other two groups because at this time only one branch is experimenting with a Compressed Workweek system in the Alberta Department of Education.

Sex. The frequency and percentage distribution for male and female respondents is presented in Table 9. There were more males than females in the Standard Hours sample, as there were 73 males comprising 55.7 percent of the sample as opposed to 58 females comprising 44.3 percent of the sample. This was the only group in which there were more male than female respondents.

The majority of the staff in the Compressed Hours

Table 9

Frequency and Percentage Distribution of Female and Male Respondents

Sex	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
Female	58	44.3	30	81.1	151	68.3
Male	73	55.7	7	18.9	70	31.7
N	131	100.00	37	100.00	221	100.00

sample were female, as women comprised 81.1 percent of the respondents. Similarly, the Flextime sample, consisted of 151 females, or 68.3 percent of the sample, and 70 males or 31.7 percent of the sample.

Age. Table 10 shows that the respondents in the Standard Hours sample tended to be older than respondents in the other innovative groups. It was found that 66.7 percent of this sample were included in the age range 30-59 years old.

The Compressed Hours sample tended to be much younger than the Standard Hours sample as 63.8 percent, or 23 respondents were less than 30 years old. This was also the case with the Flextime sample, as Table 10 shows that 173 respondents comprising 77.3 percent of the sample were between 20-49 years old.

Occupational Classification. There were more management personnel included in the Standard Hours sample than the other two samples. Table 11 reveals that 44.1 percent of the respondents in the Standard Hours sample were included in the management classification. In addition 47.3 percent of the respondents were classified as Administrative and Clerical Support Staff.

Alternatively, further examination of Table 11 shows that within the Compressed Hours sample 16.2 percent of the sample, or 6 respondents were included in the management

Table 10
Frequency and Percentage Distribution for the Age Categories of Respondents^a

Age Category	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
< 20 years	9	6.8	7	19.4	23	10.3
20-29 years	26	19.7	16	44.4	82	36.6
30-39 years	27	20.5	6	16.7	49	21.9
40-49 years	32	24.2	3	8.3	42	18.8
50-59 years	29	22.0	3	8.3	21	9.4
> 60 years	9	6.8	1	2.8	7	3.1
N	132	100.00	36	100.00	224	100.00

^a Age as of last birthday.

Table 11

Frequency and Percentage Distribution for the Occupational Categories of Respondents^a

Occupational Category	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
<u>Management</u>						
1. Executive Officer I	4	3.1	2	5.4	6	2.7
2. Executive Officer II	7	5.4	-	-	6	2.7
3. Senior Officer I	7	5.4	3	8.1	9	4.0
4. Senior Officer II	39	30.2	1	2.7	14	6.3
<u>Non Management</u>						
5. Administrative & Clerical Support Services	61	47.3	25	67.6	95	42.6
6. Administrative & Program Support Services	2	1.6	3	8.1	6	2.7
7. Trade & Related Services	3	2.3	-	-	-	-
8. Social Services Division	-	-	-	-	3	1.3
9. Institutional & Patient Support Services	-	-	-	-	-	-
10. Educational Services	4	3.1	2	5.4	70	31.4
11. Health & Therapy Support Services	-	-	1	2.7	-	-
12. Medical & Rehabilitative Services	1	0.8	-	-	-	-
13. General & Field Support	-	-	-	-	-	-
14. Technical Services Bargaining Division	1	0.8	-	-	9	4.0
15. Other ^b	-	-	-	-	5	2.2
N	129	100.00	37	100.00	223	100.00

^a Based on Personnel Classification utilized within Department of Education.^b Includes Teachers, Teacher Supervisors, Computer Programmers and Systems Analysts.

classification. Furthermore, 67.6 percent, or 25 of the respondents were classified as Administrative and Clerical Support Services, which is a non-management classification. Similarly, within the Flextime sample 35 respondents, comprising 15.7 percent of the sample were classified in management categories. As was the case with the other two groups a large number of non-management respondents were included in the Administrative and Clerical Support Services classification. In this case 95 respondents, or 42.6 percent of the sample were included in this non-management classification.

Income. An examination of Table 12 revealed that 52.8 percent of the Standard Hours sample had incomes of less than \$14,999 per annum. Alternatively 34.9 percent of this sample had an annual income in excess of \$25,000. This percentage was much higher than the other two groups. Within the Compressed Hours sample, 30 respondents, or 83.3 percent of the sample received an income of less than \$15,000 per annum, and only 5.6 percent of the sample, or 2 respondents received annual incomes in excess of \$25,000. The information in Table 12 disclosed that 42.8 percent of the Flextime sample, or 95 respondents received an annual income of less than \$10,000. Alternatively 105 respondents or 47.4 percent of this sample received annual incomes between \$10,000 + \$24,999.

Marital Status. Table 13 shows that 76.2 percent of

Table 12

Frequency and Percentage Distribution for the Income Categories for Each Group of Respondents

Income Category	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
<\$5,000	-	-	-	-	-	-
\$5,000-9,999	38	29.5	21	58.3	95	42.8
\$10,000-14,999	30	23.3	9	25.0	43	19.4
\$15,000-19,999	3	2.3	4	11.1	33	14.9
\$20,000-24,999	13	10.1	-	-	29	13.1
\$25,000-29,999	20	15.5	1	2.8	13	5.9
>\$30,000	25	19.4	1	2.8	9	4.1
N	129	100.00	36	100.00	222	100.00

Table 13

Frequency and Percentage Distribution for the Marital Status of Each Group of Respondents

Marital Status	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
Single	25	19.2	17	45.9	73	32.6
Married	99	76.2	18	48.6	136	60.9
Other ^a	6	4.6	2	5.4	14	6.4
N	130	100.00	37	100.00	223	100.00

^a Includes separated, widowed, divorced.

the Standard Hours sample were married. Only 4.6 percent of the respondents were included in the separated, widowed or divorced category. However, in the Compressed Hours sample it was found that approximately only half of the respondents were married, 18 respondents, or 48.6 percent of the sample were married, and 17 respondents or 45.9 percent of the sample were single. Within the Flextime sample Table 13 shows that 136 respondents, comprising 60.9 percent of the sample were married. On the other hand, 73 respondents or 32.6 percent of the sample were single.

Family Responsibilities. The information obtained from respondents relating to their responsibilities regarding children or other dependents who require personal assistance before or after work is presented in Table 14. Only 32.3 percent, or 41 Standard Hours respondents indicated that they did have these types of responsibilities. However, this figure was higher than the statistics for the other two groups. Within the Compressed Hours sample only a very small percentage of respondents, 10.8 percent or 4 respondents, indicated that they were involved with these types of responsibilities. Also Table 14 shows that only 62 Flextime respondents or 27.7 percent of this sample had children of school age or other dependents who required personal assistance before or after work.

Family Size. These findings could be associated with the information presented in Table 14 which examined the

Table 14

Frequency and Percentage Distribution for Respondents Who Have School Age Children
or Other Dependents Who Require Personal Assistance Before or After Work

Assistance Required	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
Yes	41	32.3	4	10.8	62	27.7
No	86	67.7	33	89.2	162	72.3
N	127	100.00	37	100.00	224	100.00

number of dependents requiring assistance before and after work. Table 15 indicates that approximately 50 percent of the Standard Hours sample do not have any children less than 18 years of age living at home. This figure was slightly lower than that obtained from the other two samples. Within the Compressed Hours sample it was found that 75.0 percent of these respondents did not have any children under 18 years of age, living at home. This figure was the highest for all of the three samples. Within the sample of Flextime respondents, Table 15 shows that 146 or 66.7 percent of this sample do not have any children under 18 years of age living at home. However, 59 respondents, comprising 26.9 percent of the Flextime sample had one or two children under 18 years old living at home.

Level of Education. An examination of Table 16 showed that the highest level of education obtained for 52 Standard Hours respondents or 40.3 percent of this sample was high school, (grades 7-12). Alternatively, 41 respondents, or 31.8 percent of this sample indicated that they hold more than one degree or diploma. The Compressed Hours sample indicated a somewhat lower level of formal education as Table 16 showed that the highest level of education obtained for 24 respondents, or 66.7 percent of this sample was high school (grades 7-12). Very few respondents, 5.6 percent of the sample indicated that they held more than one degree or diploma, and this figure was much lower than that obtained for the other two groups.

Table 15

Frequency and Percentage Distribution for the Number of Children 18 Years of Age or Less,
Living at Home for Each Group of Respondents

Number of Children	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
None	62	49.6	27	75.0	146	66.7
One	20	16.0	5	13.9	32	14.6
Two	26	20.8	3	8.3	27	12.3
Three	14	11.2	-	-	6	2.7
Four	1	0.8	1	2.8	5	2.3
More than Four	2	1.6	-	-	3	1.4
N	125	100.00	36	100.00	219	100.00

Table 16

Frequency and Percentage Distribution for the Highest Level
of Formal Education for Respondents in Each Group

Highest Level of Formal Education	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
Elementary School (Grades 1-6)	-	-	-	-	1	0.4
Highschool (Grades 7-12)	52	40.3	24	66.7	91	39.8
1-2 years Post Secondary	16	12.4	5	13.9	12	5.3
Degree or Diploma Program (Non University)	11	8.5	4	11.1	22	9.7
Degree or Diploma Program (University)	3	2.3	1	2.8	37	16.4
More than one Degree or Diploma Program	41	31.8	2	5.6	57	25.2
Other	6	4.7	-	-	7	3.1
N	129	100.00	36	100.00	226	100.00

Within the Flextime sample it was found that 57 respondents comprising 25.2 percent of this sample had more than one degree or diploma. Alternatively 39.8 percent of this sample, or 91 respondents had not gone beyond high school (grades 7-12) with their formal education.

Employment Status. Table 17 reveals that within the Standard Hours sample almost 50 percent of married respondents had a spouse who was employed full-time. It can be seen that 50 respondents had a spouse employed full-time, whereas 41 respondents indicated their spouse was not employed and a further 7 respondents stated their spouse was employed part-time. However, within the other two samples the percentage of working spouses was somewhat higher. For the Compressed Hours sample, Table 17 shows that for the married respondents, 10 respondents or 62.5 percent of the sample had a spouse who worked full-time. Alternatively 5 respondents or 31.2 percent of the sample indicated that their spouse was not employed. Similarly within the Flextime sample, Table 17 indicates that for the married respondents 89 respondents or 65.4 percent of this group, had a spouse working full-time. Furthermore, 10 respondents or 7.3 percent of this married group had a spouse working part-time.

Length of Service. Finally, Table 18 indicates that 61 respondents or 47.3 percent of the Standard Hours sample had been employed in their respective branches for more than

Table 17

Frequency and Percentage Distribution for the Employment Status
for the Spouse of Each Group of Respondents

Employment Status of Spouse	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
Full Time	50	39.7	10	29.4	89	40.5
Part Time	7	5.6	1	2.9	10	4.5
Not Employed	41	32.5	5	14.7	37	16.8
Not Married	28	22.2	18	52.9	84	38.2
N	126	100.00	34	100.00	220	100.00

Table 18

Frequency and Percentage Distribution for the Employment History
within Respective Branches for Each Group of Respondents

Length of Employment	Standard Hours Group		Compressed Workweek Group		Flextime Group	
	f	%	f	%	f	%
< 6 months	10	7.8	2	5.4	18	8.0
6-12 months	8	6.2	4	10.8	22	9.7
13-24 months	18	14.0	10	27.0	42	18.6
25-36 months	21	16.3	8	21.6	33	14.6
37-48 months	11	8.5	2	5.4	14	6.2
> 48 months	61	47.3	11	29.7	97	42.9
N	129	100.00	37	100.00	226	100.00

48 months. This figure was higher than for two experimental groups. Within the Compressed Hours sample only 29.7 percent, or 11 respondents within this sample had worked in this branch for more than 48 months. This figure was much lower than that obtained from the other two groups. Finally, Table 18 shows that 42.9 percent of the Flextime sample or 97 respondents had worked in these branches for more than 48 months.

CHAPTER SUMMARY

This chapter focused upon the research design and development of the instrumentation used in this study. The populations from which the stratified random samples were drawn were identified, and the method used to select the sample was discussed. The sample of respondents used in the study consisted of 132 Standard Hours respondents, 37 Compressed Workweek respondents and 227 Flextime respondents. The development and validation of the instrumentation used in this study was discussed incorporating a summary of the findings and recommended changes arising from the pilot study. The method of data collection was explained, and the statistical treatment of the data outlined. Finally, a profile of the personal characteristics of the respondents was presented by applying descriptive statistics to this data.

CHAPTER 4

RESEARCH FINDINGS: INTER-GROUP ANALYSIS OF PERCEPTIONS OF ORGANIZATIONAL OPERATIONS ASSOCIATED WITH DIFFERENT WORKWEEK STRUCTURES

This is the first of four chapters that deal with the analysis of the data gathered for this study. The first section consisting of Chapter 4 and 5 focus upon significant differences among perceptions of respondents involved in different workweek structures for factors relating to job satisfaction. The second section examines significant differences in perceptions of respondents concerning aspects of organizational performance within their respective workweek structure.

PERCEPTIONS CONCERNING JOB SATISFACTION AND WORKWEEK STRUCTURES

The first phase of this analysis was directed towards an examination of all rank ordering of mean scores as determined by the respondents' perceptions of aspects of job satisfaction associated with a particular workweek structure. Secondly, this section of the study examined inter-group comparisons involving total personnel, management, and non-management, perceptions of job satisfaction within their respective worksites.

Job Satisfaction Priorities for Standard Hours Group

The rank ordering of means for all operationally defined aspects of job satisfaction is displayed in Table 19. With one exception, all of these mean scores indicated that the Standard Hours respondents tended to be satisfied with the aspects of the job examined in this study. In order of importance the three most satisfactory aspects of the job for personnel employed in the Standard Hours program were: (10) The way they now organize and complete their work, (3) The method of keeping track of hours worked each day, and (6) The arrangements employees have to travel to and from work, and (1) The overall program in your department. These last two items shared tied ranks.

Alternatively in order of priority the three least satisfactory aspects of the job relating to Standard Hours program were: (4) The freedom employees have to decide when they will arrive and depart from work. (8) The utilization of the service provided by the bus system and (7) Freedom to handle personal business during the day.

Job Satisfaction Priorities for Compressed Hours Group

With one exception, all of the mean scores for the Compressed Hours respondents indicated that they were very satisfied with the aspects of the job examined in this study. The three most satisfactory aspects of the job relating to the Compressed Hours program were: (6) The

Table 19
Means, Standard Deviations and Rank Order of Means for Job Satisfaction^a

Job Satisfaction	Standard Hours				Compressed Hours				Flexible Hours			
	N	Mean	S.Dev.	Rank Order of Means	N	Mean	S.Dev.	Rank Order of Means	N	Mean	S.Dev.	Rank Order of Means
1. The over-all program in your department	130	2.12	0.93	3	36	1.50	0.70	2	223	1.67	0.64	3
2. The way in which the program is organized	132	2.19	0.94	6	36	1.61	0.69	6	224	1.85	0.74	8
3. The method of keeping track of the hours worked each day	132	2.09	0.97	2	36	1.50	0.66	2	225	1.75	0.78	7
4. The freedom you have to decide when you will arrive and depart from work	132	2.89	1.42	8	30	1.96	0.89	9	226	1.61	0.93	2
5. The way your immediate supervisor is administering the program	132	2.14	1.04	5	35	1.57	0.70	5	224	1.74	0.87	6
6. The arrangements you have for travel to and from work	132	2.12	1.41	3	37	1.40	0.50	1	225	1.60	0.71	1
7. Freedom to handle personal business during the workday	132	3.04	1.21	10	36	1.75	0.71	8	226	1.68	0.74	4
8. Your utilization of the service provided by the bus system	123	2.97	0.97	9	32	2.34	1.10	10	189	2.57	0.96	10
9. Changes which have occurred in the way work is done	131	2.46	0.84	7	35	1.63	0.60	7	218	2.09	0.80	9
10. The way you now organize and complete your work	131	2.01	0.78	1	36	1.55	0.50	4	224	1.72	0.66	5
^a Likert Scale:												
	Very Satisfied			(1)	No Opinion			(3)	Very Dissatisfied			(5)
	Satisfied			(2)	Dissatisfied			(4)				

arrangement personnel have to travel to and from work, (1) The overall program within the department and (3) The method of keeping track of hours worked each day.

On the other hand, the three least satisfactory aspects of the job relating to the Compressed Hours program were: (8) Your utilization of the service provided by the bus system, (4) Freedom personnel have to decide when they will arrive and depart from work, and (7) Freedom to handle personal business during the workday.

Job Satisfaction Priorities for Flexible Hours Group

With the exception of two variables, all the mean scores for the Flexible Hours respondents indicated that they tended to be very satisfied with the aspects of the job examined in this study. In order of importance, the Flextime group considered the three most satisfactory aspects of the job relating to Flexible Hours were: (6) The arrangements personnel have to travel to and from work, (4) The freedom personnel have to decide when they will arrive and depart from work and (1) The overall program in the department. Furthermore, the Flextime group considered that in order of priority the three lowest ranking aspects of the job relating to Flextime were: (2) The way in which the program is organized (9) Changes which have occurred in the way work is done and (8) The utilization of the service provided by

the bus system.

Comparative Analysis of the Mean Scores for Job Satisfaction

The information presented in Figure 9 shows a profile of Standard, Compressed and Flexible hours priorities for variables relating to job satisfaction.

High Priorities Relating to Job Satisfaction. There was dissensus among all three groups with regard to the three highest ranking aspects of the job in these various workweek structures. Only one variable, namely, (6) the arrangements personnel have to travel to and from work was included among the three highest ranking aspects of the job environment by all three groups. However, (3) the method of keeping track of hours worked each day, was included by the Standard and Compressed Hours groups.

Low Priorities Relating to Job Satisfaction. Here again there was fairly low consensus between the three groups concerning the lowest ranking aspects of their job environment. One variable, (8) the utilization of the service provided by the bus system, was included by all three groups. However, the Standard and Compressed Hours groups included (4) the freedom they have to arrive and depart from work, and (7) the freedom they have to handle personal business during the day.

Job Satisfaction

1. The over-all program in your department
2. The way in which the program is organized
3. The method of keeping track of the hours worked each day
4. The freedom you have to decide when you will arrive and depart from work
5. The way your immediate supervisor is administering the program
6. The arrangements you have for travel to and from work
7. Your utilization of the service provided by the bus system
8. Changes which have occurred in the way work is done
9. The way you now organize and complete your work
10. Freedom to handle personal business during the workday

..... Flexible Hours
—— Compressed Hours
----- Standard Hours

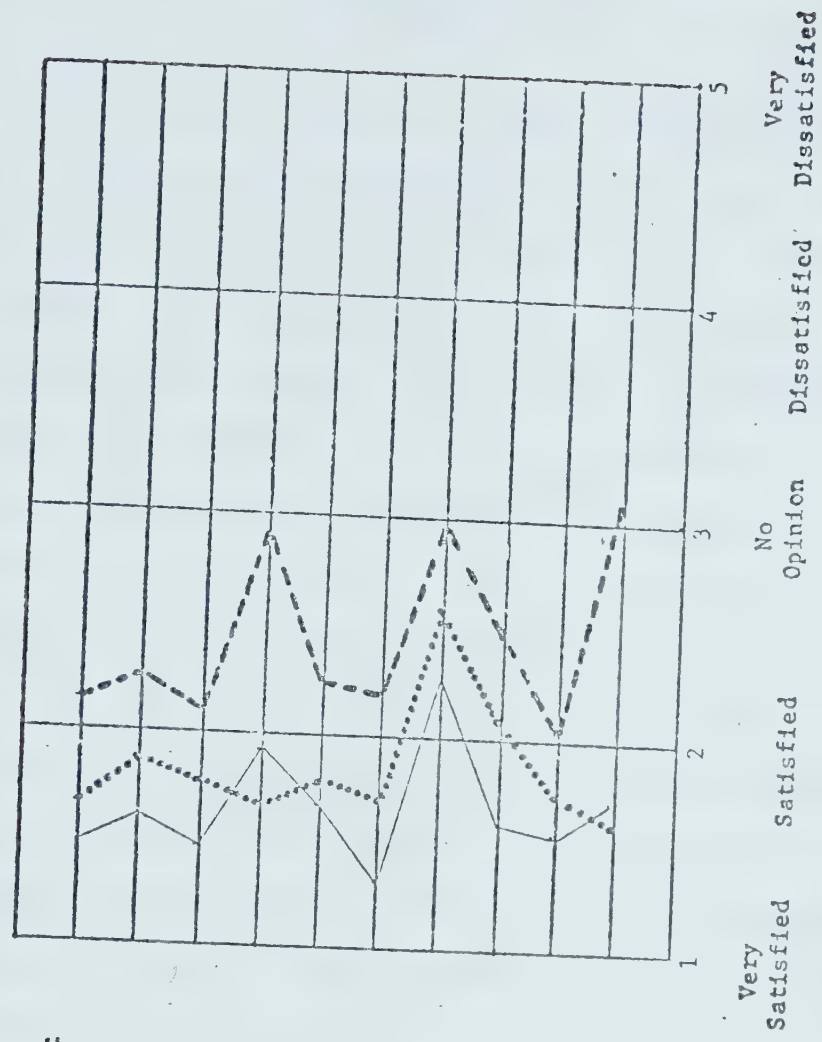


Figure 9

Profile of Standard, Compressed and Flexible Hours Priorities Relating to Job Satisfaction

INTER-GROUP ANALYSIS OF DIFFERENCES
BETWEEN MEANS FOR
JOB SATISFACTION

The second phase of the analysis was directed towards a statistical comparison of the mean responses for the selected aspects of job satisfaction, as determined by each group of respondents. The statistical procedure utilized for this purpose was a one way analysis of variance procedure using Scheffe Multiple Comparison of Means to determine significant differences, among groups of respondents. Throughout this section statistical significance has been reported at the .05 level of probability for the obtained F ratio and statistical significance for any pair of means has been reported at the .05 and .01 level of probability. In some cases the obtained homogeneity of variance chi-square did not satisfy this .05 significance level, and thus the obtained variance was not homogeneous for these cases.

However Glass et.al. (1972), Ferguson (1971) and Winer (1962) commenting on assumptions underlying the analysis of variance procedure emphasized the following points. A first assumption in the application of analysis of variance is that the variances in the population from which the samples are drawn are equal. However, Ferguson (1971:219) stated "Moderate departures from homogeneity should not seriously affect the inferences drawn from the

data." Winer (1962:33) supports this view, when he stated:

Moderate departures from the hypothesis that $\sigma_1 = \sigma_2$ do not seriously affect the accuracy of the decisions reached ... in more technical language the t test [and the F test] is robust with respect to moderate departures from the hypothesis of homogeneity of variance.

Furthermore, Winer (1962:92) pointed out:

... when the variances in the population are not equal, the F statistic using a pooled variance has approximately the same distribution as the F statistic which takes the differences in the population variances into account.

Thus, although in some cases the obtained homogeneity of variance chi-square did not satisfy the .05 significance level, the seriousness of this limitation is well summarized by Ferguson (1971:219):

With most sets of real data the assumptions underlying the analysis of variance are, at best, only roughly satisfied. The raw data of experiments frequently do not exhibit the characteristics which the mathematical models require. One advantage of the analysis of variance is that reasonable departures from the assumptions of normality and homogeneity may occur without seriously affecting the validity of the inferences drawn from the data.

However, whenever this homogeneity of variance assumption was not satisfied at the .05 significance level, this will be noted in the tables. The following sections on analysis of variance are limited to a discussion of obtained significant differences among the following groups: (a)

Total personnel, (b) Management personnel and (c) Non-Management personnel. There is no discussion of instances where no significant differences were obtained.

Analysis of Variance: Job Satisfaction

Appendix D presents a factor analysis of the items included in this section of the study on job satisfaction and workweek structures. A two factor solution was derived and this was used to provide the framework for the following analysis.

Factor A. Schedule Monitoring

(1) The Overall Program in your Department

The information presented in Table 20 shows the obtained means for each group of respondents, the F ratio and the associated probability, and the Scheffe multiple comparison of mean probabilities for significant differences between each pair of means.

Total Personnel. The probability level of 0.00 for the obtained F ratio, showed that at least one significant difference occurred between the pairs of means of these three groups. Further inspection of the Scheffe probabilities for each pair of means revealed that statistically significant differences occurred between the

Table 20

Scheffé Analysis of Variance for Job Satisfaction

1. Overall Program in Your Branch

4. Overall Program in Your Branch												
Group	Total Personnel*				Management				Non Management*			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	130	2.12	1,2	0.00b	57	1.90	1,2	0.70	70	2.36	1,2	0.00b
2. Compressed Hours	36	1.50	1,3	0.00b	5	1.60	1,3	0.96	31	1.48	1,3	0.00b
3. Flexible Hours	223	1.67	2,3	0.46	33	1.85	2,3	0.78	186	1.63	2,3	0.61
F. Ratio = 17.7 Probability = 0.00												

F. Ratio = 17.7 Probability = 0.00

F. Ratio = 0.37

Probability = 0.69

F. Ratio = 23.28

Probability = 0.00

b Significant at .01 level.

* Variance not homogeneous at .05 level.

mean for Standard and Compressed Hours. The mean for the Compressed Hours group, 1.50 was significantly lower than the mean for the Standard Hours group at the 0.00 probability level. This indicated that the former group was more satisfied with the overall program in their branches.

Similarly, when scores of all personnel were tested significant differences were found between the Standard Hours mean score, 2.12 and the Flextime mean, 1.67 at the 0.00 probability level. This indicated that the latter group was more satisfied with the overall program in their branches.

Non-Management. The probability level of 0.00 for the obtained F ratio indicated significant differences occurred for at least one pair of means. Further investigation showed that the mean of 2.30 for the Standard Hours group was significantly higher than the mean for the Compressed Hours group, 1.48, at the 0.00 probability level. Thus the Compressed Hours group were significantly more satisfied with the overall program in their branch.

As reported in Table 20 the mean of 2.30 for the Standard Hours group, and the mean of 1.63 for the Flextime group were significantly different at the 0.00 probability level. Thus, the Flextime group, was more satisfied with the overall program in their branches.

(2) The Way in Which the Program is Organized

Total Personnel. Table 21 shows that the obtained F ratio had an associated probability of 0.00. Therefore, significant differences occurred between at least one pair of means. The Scheffe test showed that significant differences occurred at the 0.00 probability level, between the Standard hours mean score of 2.19 and the Compressed Hours mean score of 1.61. Thus, the Compressed Hours group were more satisfied with the way in which the program is organized in their branch.

Similarly at the 0.00 level of probability differences were found between the Standard Hours mean score of 2.19 and the Flextime mean score of 1.85. Because the Flextime mean was significantly lower this indicated that this innovative group was more satisfied with the way the program was organized in their branches.

Non-Management. The probability level of 0.00 indicated significant differences occurred for at least one pair of means. The obtained mean for the Standard Hours group, 2.42 was significantly different from the mean of 1.52 for the Compressed Hours group at the 0.00 probability level. Thus, the Compressed Workweek group was more satisfied with the way the program was organized in their branch.

Table 21
Scheffé Analysis of Variance for Job Satisfaction
2. The Way in Which the Program is Organized

Group	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	132	2.19	1,2	0.00 ^b	57	1.91	1,2	0.76	72	2.42	1,2	0.00 ^b
2. Compressed Hours	36	1.61	1,3	0.00 ^b	5	2.20	1,3	1.00	31	1.52	1,3	0.00 ^b
3. Flexible Hours	224	1.85	2,3	0.26	34	1.91	2,3	0.77	186	1.83	2,3	0.12

F. Ratio = 10.73 Probability = 0.00

F. Ratio = 0.28

Probability = 0.75

F. Ratio = 19.41 Probability = 0.00

^b Significant at .01 level.

* Variance not homogeneous at .05 level.

Furthermore, Table 21 shows that the Standard Hours mean, 2.42 was significantly higher than the Flextime mean score of 1.83 at the 0.00 probability level. Again, the innovative group was more satisfied with the way in which the program was organized.

(3) Method of Keeping Track of Hours Worked

Total Personnel. The probability level of 0.00 for the obtained F ratio indicated significant differences between at least one pair of means. Further examination revealed that the Standard Hours mean 2.09 was significantly higher than the Compressed Hours mean of 1.50 at the 0.00 probability level. Thus, the Compressed Hours group were more satisfied with the methods used to keep track of hours worked.

Furthermore, the Standard Hours mean 2.09 was also significantly higher than the Flextime mean of 1.75 at the 0.00 probability level. Thus the Flextime group was more satisfied with the method used to keep track of hours worked.

Non-Management. Table 22 shows that the obtained F ratio had an associated probability of 0.00, and thus at least one pair of means was significantly different. The Standard Hours mean, 2.19 was significantly higher than the Compressed Hours mean of 1.50 at the 0.00 probability level.

Table 22
Scheffé Analysis of Variance for Job Satisfaction
3. Method of Keeping Track of Hours Worked

Group	Total Personnel*			Management			Non-Management*		
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Mean	Probability
1. Standard Hours	132	2.09	1,2	0.00 ^b	57	1.95	1,2	2.19	0.00 ^b
2. Compressed Hours	36	1.50	1,3	0.00 ^b	6	1.50	1,3	1.50	0.00 ^b
3. Flexible Hours	225	1.75	2,3	0.24	33	2.09	2,3	1.68	0.55

F. Ratio = 10.14 Probability = 0.00 F. Ratio = 1.27 Probability = 0.29 F. Ratio = 12.53 Probability = 0.00

^b Significant at .01 level.

* Variance not homogeneous at .05 level.

Thus, the Compressed Hours group were more satisfied with the method used to keep track of hours worked.

Furthermore, the Standard Hours mean, 2.19 was significantly higher than the Flextime mean of 1.68 at the 0.00 probability level. Thus, the Flextime group was more satisfied with the methods used to keep track of hours worked.

Summary. Thus for these aspects of schedule monitoring a number of significant differences were found among non-management personnel. However, there was a high degree of consensus among management indicating that there were no discernible differences in these aspects of schedule monitoring across these different workweek structures.

Factor B. - Individual Autonomy

(4) Freedom on Decisions of Arrival and Departure

Total Personnel. Table 23 disclosed that the obtained F ratio had an associated probability of 0.00 and therefore at least one pair of means were significantly different. The Scheffe test showed that the Standard Hours mean, 2.89 was significantly higher than the Compressed Hours mean of 1.96, at the 0.00 probability level.

Furthermore, the Standard Hours mean, 2.89 was also significantly higher than the Flextime mean of 1.61, with an

Table 23
Scheffé Analysis of Variance for Job Satisfaction
4. Freedom on Decisions of Arrival and Departure

Group	Total Personnel*				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	132	2.89	1,2	0.00 ^b	57	1.97	1,2	0.89	72	3.65	1,2	0.00 ^b
2. Compressed hours	30	1.96	1,3	0.00 ^b	5	2.20	1,3	0.21	25	1.92	1,3	0.00 ^b
3. Flexible Hours	226	1.61	2,3	0.28	34	1.56	2,3	0.45	188	1.62	2,3	0.37

F. Ratio = 53.63 Probability = 0.00

F. Ratio = 1.90 Probability = 0.16

F. Ratio = 110.33 Probability = 0.00

^b Significant at .01 level.

* Variance not homogeneous at .05 level.

associated probability of 0.00. Thus, in both instances the groups involved in altered workweeks were more satisfied with their freedom of decisions on arrival and departure from work.

Non-Management. Further examination of Table 23 disclosed that the obtained F ratio had an associated probability of 0.00 and thus at least one pair of means were significantly different. Further investigation revealed that the Standard Hours mean was significantly higher than both the Compressed Hours mean, 1.92 and the Flextime mean of 1.62, at the 0.00 probability level. Thus both of the non-management groups involved in these innovations were significantly more satisfied with their freedom of decisions on arrival and departure from work.

(5) Administration of Program by Supervisor

Total Personnel. The information presented in Table 24 revealed that the obtained F ratio had an associated probability of 0.00 and therefore at least one pair of means were significantly different. Further investigation revealed that the Standard Hours mean of 2.14 was significantly higher than Compressed Hours mean, 1.57 and the Flextime mean of 1.74 at the 0.01 probability level. Thus the total personnel involved in these two innovations in time were significantly more satisfied with the administration of the

Table 24
Scheffé Analysis of Variance for Job Satisfaction
5. Administration of Program by Supervisor

Group	Total Personnel*				Management				Non Management†			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	132	2.14	1,2	0.01 ^b	57	1.63	1,2	0.35	72	2.54	1,2	0.00 ^b
2. Compressed Hours	35	1.57	1,3	0.00 ^b	5	2.20	1,3	0.50	30	1.47	1,3	0.00 ^b
3. Flexible Hours	224	1.74	2,3	0.61	33	1.85	2,3	0.68	187	1.71	2,3	0.38

F. Ratio = 10.03 Probability = 0.00

F. Ratio = 1.51

Probability = 0.23

F. Ratio = 26.33

Probability = 0.00

^b Significant at .01 level.

* Variance not homogeneous at .05 level.

program in their branches by their supervisors.

Non-Management. Table 24 indicated that the obtained F ratio had an associated probability of 0.00. Further examination revealed that the Standard Hours mean of 2.54 was significantly higher than both the Compressed Hours mean, 1.47 and the Flextime mean of 1.71, at a 0.00 probability level. Thus the non-management personnel involved in these two innovations in the allocation of time were more satisfied with the administration of their program by supervisors in their respective branches.

(6) Travel Arrangements To and From Work

Total Personnel. The probability level of 0.00 for the obtained F ratio indicated that at least one pair of means were significantly different. Further examination of Table 25 showed that the Standard Hours mean of 2.12 was significantly higher than both the Compressed Hours mean, 1.40 and the Flextime mean of 1.60 at the 0.00 probability level. Thus in both of the groups where total personnel were involved in these altered workweeks it was found that they were significantly more satisfied with their travel arrangements to and from work.

Non-Management. The probability level of 0.00 for the obtained F ratio, showed there was at least one pair of means for which significant differences were obtained. (See

Table 25
Scheffé Analysis of Variance for Job Satisfaction
6. Travel Arrangements to and from Work

Group	Total Personnel*			Management			Non Management†					
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	132	2.12	1,2	0.00 ^b	57	1.63	1,2	0.76	72	2.39	1,2	0.00 ^b
2. Compressed Hours	37	1.40	1,3	0.00 ^b	5	2.20	1,3	0.84	31	1.39	1,3	0.00 ^b
3. Flexible Hours	225	1.60	2,3	0.43	33	1.85	2,3	0.90	187	1.59	2,3	0.47

F. Ratio = 18.68 Probability = 0.00 F. Ratio = 1.51 Probability = 0.22 F. Ratio = 27.24 Probability = 0.00

^b Significant at .01 level.

* Variance not homogeneous at .05 level.

Table 25). The Standard Hours mean of 2.39 was significantly higher than both the Compressed Hours mean, 1.39 and the Flextime mean of 1.59, at the 0.00 probability level. Thus the two non-management groups involved in these re-arranged workweeks were more satisfied with their travel arrangements to and from work than the Standard Hours group.

(7) Freedom to Handle Personal Business During the Workday

Total Personnel. The information presented in Table 26 disclosed that the obtained F ratio had a probability of 0.00 indicating a significant difference between at least one pair of means. It was found that the Standard Hours mean 3.03 was significantly higher than both the Compressed Hours mean 1.75 and the Flextime mean of 1.68 at the 0.00 probability level. Thus the total personnel involved in altered workweeks had more freedom to handle personal business during the workday, than the Standard Hours group.

Management. Further examination of Table 26 revealed that the obtained F ratio had an associated probability of 0.00, and thus at least one pair of means was significantly different. It was found that the Flexible Hours mean 1.74 was significantly lower than the Standard Hours mean, 2.58 at the 0.00 probability level. Thus Flextime management perceived themselves as having more freedom to handle personal business during the day from Standard Hours

Table 26
Scheffé Analysis of Variance for Job Satisfaction
7. Freedom to Handle Personal Business During the Workday

Group	Total Personnel*				Management				Non Management*			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	132	3.03	1,2	0.00 ^b	57	2.58	1,2	0.93	72	3.41	1,2	0.00 ^b
2. Compressed Hours	36	1.75	1,3	0.00 ^b	5	2.40	1,3	0.00 ^b	31	1.65	1,3	0.00 ^b
3. Flexible Hours	226	1.68	2,3	0.93	34	1.74	2,3	0.36	188	1.67	2,3	0.99

F. Ratio = 91.07 Probability = 0.00 F. Ratio = 8.08 Probability = 0.00 F. Ratio = 108.55 Probability = 0.00

^b Significant at .01 level.

* Variance not homogeneous at .05 level.

managers.

Non-Management. Table 26 showed that the F ratio had an associated probability of 0.00. Further examination revealed that the Standard Hours mean 3.41 was significantly higher than the Compressed Hours mean, 1.65 and the Flextime mean of 1.67 at the 0.00 probability level. Thus the Standard Hours non-management personnel perceived themselves as having less freedom to handle personal business during the day than the other two groups.

Summary. Thus, the findings disclosed that for the variables related to Individual Autonomy a number of significant differences were obtained among the non-management personnel. Alternatively, there was a fairly high level of consensus among management personnel emphasizing no discernible changes in Individual Autonomy except for (7) Freedom to handle business during the workday where the Flextime management were more satisfied, than the other groups.

C. - Other Variables

The following variables did not load on either Factor A or Factor B at the .4 level of significance.

(8) Utilization of the Bus Service

Total Personnel. An examination of Table 27

Table 27
Scheffé Analysis of Variance for Job Satisfaction
8. Utilization of Bus Service

8. Utilization of Bus Service

Group	Total Personnel			Management			Non Management					
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	132	2.97	1,2	0.01 ^b	55	2.87	1,2	0.99	65	3.05	1,2	0.00 ^b
2. Compressed Hours	32	2.34	1,3	0.00 ^b	5	2.80	1,3	0.99	27	2.56	1,3	0.00 ^b
3. Flexible Hours	189	2.57	2,3	0.49	29	2.90	2,3	0.96	157	2.50	2,3	0.53

F. Ratio = 8.44 Probability = 0.00 F. Ratio = 0.03 Probability = 0.97 F. Ratio = 8.66 Probability = 0.00

b Significant at .01 level.

disclosed that the obtained F ratio had an associated probability of 0.00. This indicated that there was a significant difference between at least one pair of means. Further investigation revealed that the Standard Hours mean, 2.12 was significantly higher than both the Compressed Hours mean 1.40 and the Flexible Hours mean of 1.60 at the .01 probability level. Thus both of the groups involved in altered workweeks were more satisfied with their use of the bus system.

Non-Management. Table 27 showed the F ratio had an associated probability of 0.00 indicating a significant difference between at least one pair of means. The mean for Standard hours, 3.05 was significantly higher than both the means for the Compressed Hours group, 2.56 and the Flexible Hours group of 2.50 at the 0.00 probability level. Thus non-management personnel in the altered workweek groups were more satisfied with their utilization of the service provided by the bus system.

(9) Changes Which have Occurred in the Way Work is Done

Total Personnel. The probability level of 0.00 for the obtained F ratio indicated that at least one significant difference occurred between the pairs of means for these three groups. Further examination of Table 28 disclosed that the Standard Hours mean 2.46 was significantly higher than

Table 28
Scheffé Analysis of Variance for Job Satisfaction
9. Changes Which Have Occurred in Way Work is Done

Group	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	131	2.46	1,2	0.00 ^b	57	2.35	1,2	0.33	71	2.54	1,2	0.00 ^b
2. Compressed hours	35	1.63	1,3	0.00 ^b	5	1.80	1,3	0.90	30	1.60	1,3	0.00 ^b
3. Flexible Hours	218	2.09	2,3	0.01 ^b	33	2.27	2,3	0.46	182	2.06	2,3	0.17

F. Ratio = 17.47 Probability = 0.00 F. Ratio = 1.16 Probability = 0.32 F. Ratio = 16.21 Probability = 0.00

b Significant at .01 level.

the mean for both the Compressed Hours group 1.63 and the Flextime mean, 2.09 at the 0.00 probability level. However the Compressed Hours mean, 1.63 was also significantly lower than the Flextime mean of 2.09 at the 0.01 probability level. Thus the Compressed Workweek group was the most satisfied with changes which have occurred in the way work is done since adopting their innovation in the management of time. However, the Flextime group was more satisfied than the Standard Hours group.

Non-Management. In examination of Table 28 disclosed that the F ratio had an associated probability of 0.00. This indicated that at least one pair of means was significantly different. Further analysis showed that the Standard Hours mean of 2.54 was significantly higher than both the Compressed Hours mean, 1.60 and the Flextime mean, 2.06 at the 0.00 probability level. Thus both groups of non-management personnel involved in altered workweeks tended to be more satisfied concerning changes which had occurred in the way work was done in their respective branches.

(10) Completion and Organization of Work

Total Personnel. The information presented in Table 29 showed the obtained F ratio had an associated probability of 0.00. Further examination showed that the Standard Hours mean, 2.01 was significantly higher than both the Compressed

Table 29
Scheffé Analysis of Variance for Job Satisfaction
10. The Way You Now Complete and Organize Your Work

Group	Total Personnel*				Management				Non Management*			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	131	2.01	1,2	0.00 ^b	57	1.95	1,2	0.93	71	2.07	1,2	0.00 ^b
2. Compressed Hours	36	1.55	1,3	0.00 ^b	5	1.80	1,3	0.86	31	1.52	1,3	0.00 ^b
3. Flexible Hours	224	1.72	2,3	0.40	34	1.85	2,3	0.99	186	1.69	2,3	0.36

F. Ratio = 10.18 Probability = 0.00

F. Ratio = 0.19

Probability = 0.82

F. Ratio = 11.67 Probability = 0.00

^b Significant at the .01 level.

* Variance not homogeneous at .05 level.

Hours mean, 1.55 and the Flexible Hours mean, 1.72 at the 0.00 probability level. Thus the total personnel involved in altered workweeks were more satisfied with the way they organized and completed their work in their branches.

Non-Management. Further analysis of Table 29 showed that a probability of 0.00 was associated with the obtained F ratio. Thus the Standard Hours mean of 2.07 was significantly higher than both the Compressed Hours mean, 1.52 and the Flexible Hours mean of 1.69 at the 0.00 probability level. Thus the two innovative groups were more satisfied with the way they now complete and organize their work.

Summary. The information contained in Table 30 presented a summary of the significant differences between the obtained mean scores for Standard, Compressed and Flexible Hours groups as determined by the Scheffe Multiple Comparison of Means Test.

An examination of Table 30 revealed that the two groups of personnel involved in innovations in the management of time were more satisfied with all dimensions of job satisfaction included in this study, than Standard Hours personnel. However, the management group, with the exception of one case, did not perceive any significant differences relating to the aspects of job satisfaction measured in this study.

Summary of Differences Between Pairs of Group Means for Job Satisfaction

	Total Personnel	Management	Non-Management
Factor A. Schedule Monitoring			
1. The over-all program in your department	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a
2. The way in which the program is organized	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a
3. The method of keeping track of the hours worked each day	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a
Factor B. Individual Autonomy			
4. The freedom you have to decide when you will arrive and depart from work	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a
5. The way your immediate supervisor is administering the program	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a
6. The arrangements you have for travel to and from work	S/C ^a , S/F ^a	--	S/C ^a , S/F ^a
7. Freedom to handle personal business during the workday	S/C ^a , S/F ^a	S/F ^a	S/C ^a , S/F ^a
C. Additional Variables			
8. Your utilization of the service provided by the bus system	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a
9. Changes which have occurred in the way work is done	S/C ^a , S/F ^a , F/C ^a	-	S/C ^a , S/F ^a
10. The way you now organize and complete your work	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a

^a Lowest Mean = Most satisfied

S = Standard Hours,

C = Compressed Hours,

F = Flexible Hours

NB. All differences significant at .05 level.

Alternatively, the non-management groups, perceived significant differences for all items relating to job satisfaction measured in this study. In all cases the two non-management groups involved in altered workweeks indicated higher job satisfaction than the Standard Hours group.

PERCEPTIONS CONCERNING ORGANIZATIONAL PERFORMANCE AND WORK WEEK STRUCTURES

The third phase of the analysis examined a statistical comparison of the mean responses for aspects of organizational performance, as determined by each group of respondents. Again, a one way analysis of variance procedure using Scheffe Multiple Comparison of Means was used to determine significant differences among groups of respondents. Two aspects of perceptions for each variable relating to organizational performance were examined: (1) The nature of any change that has occurred and (2) The importance of any change that has occurred. Here again, only obtained significant differences among groups are discussed.

Analysis of Variance - Organizational Performance

Appendix G presents a factor analysis of the variables included in this section of the study on perceptions of organizational performance and various workweek structures. A four factor solution was derived and

this was used to provide a framework for the following analysis.

Factor A - Organizational Communication

1. Availability of Personnel with Whom You Work

Total Personnel. Table 31 discloses that although all groups indicated that availability of personnel as shown by direction of the change was much the same as before, the Flexible Hours mean of 1.91 for the importance of the change was significantly lower than the Standard Hours mean of 2.07 at the 0.02 probability level. This indicated that the Flextime group perceived this lack of change in availability of personnel to be a more important issue than did the Standard Hours group.

Management. Further examination of Table 31 disclosed that for perceptions concerning the direction of change the Standard Hours mean 1.91 was significantly lower than the Compressed Hours mean of 2.67 at the 0.00 probability level. Thus availability of personnel was seen as less of a problem for the Standard Hours management group, whereas the Compressed Hours management group indicate a deterioration in this variable. In addition the Compressed Hours mean, 2.67 was significantly higher than the Flextime mean of 2.15 at the .06 probability level. Thus the Compressed Hours managers also noted greater deterioration in the availability of personnel with whom

they must work than Flextime management.

Furthermore, the probability level of 0.04 associated with the obtained F ratio concerning the importance of the change indicated a significant difference between at least one pair of means. The mean score for the Standard Hours group, 2.07 was significantly higher than the Flextime mean of 1.85 at the 0.06 probability level. Thus although these groups indicated changes in this item, this change was perceived as more important by the Flextime management group.

Non-Management. Although, all non-management groups indicated little change in the availability of personnel with whom they must work, there was some difference concerning perceptions of the importance of this lack of change. The obtained F ratio had an associated probability of 0.04 indicating a significant difference between at least one pair of means. Further examination revealed that the Standard Hours mean 2.09 was significantly higher than the Flextime mean of 1.93 at the 0.09 probability level. Thus the Flextime group considered this lack of change to be more important from the Standard Hours group.

2. Degree of Participation in Decisions About Work Assignments

Management. Table 32 shows one significant

Table 32
Scheffé Analysis of Variance for Changes in Organizational Performance
2. Degree of Participation in Decisions About Work Assignments

Group	DIRECTION OF THE CHANGE									
	Total Personnel					Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean
1. Standard Hours	125	1.94	1,2	0.16	57	1.98	1,2	1.00	65	1.89
2. Compressed Hours	37	1.78	1,3	0.15	6	2.00	1,3	0.04 ^a	31	1.74
3. Flexible Hours	207	1.85	2,3	0.74	33	1.76	2,3	0.40	170	1.85
	F. Ratio = 2.75 Probability = 0.65					F. Ratio = 3.44 Probability = 0.04				
	a Significant at .05 level.					F. Ratio = 1.18 Probability = 0.31				

Group	IMPORTANCE OF THE CHANGE									
	Total Personnel					Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean
1. Standard Hours	118	2.03	1,2	0.35	57	2.05	1,2	0.97	58	2.02
2. Compressed Hours	34	2.18	1,3	0.96	6	2.00	1,3	0.98	28	2.21
3. Flexible Hours	197	2.05	2,3	0.41	33	2.03	2,3	0.99	161	2.06
	F. Ratio = 1.09 Probability = 0.34					F. Ratio = 0.04 Probability = 0.96				
						F. Ratio = 1.46 Probability = 0.23				

difference among management means regarding the nature of any changes in this item. The obtained F ratio had an associated probability of 0.04. The Standard Hours mean 1.98 was significantly higher than the Flextime mean of 1.76, at the 0.04 probability level. Thus the Flextime group indicated a more significant change towards greater participation in decisions about work assignments. However, concerning the importance of any change, there were no significant differences among the management means.

3. Degree of Difficulty in Scheduling Work Requiring Others

Total Personnel. Table 33 showed that the F ratio had an associated probability of 0.01, indicating at least one pair of means for the nature of changes in this item were significantly different. Further examination disclosed that the Standard Hours mean, 2.09 was significantly higher than the Flextime mean of 1.95 at the 0.04 probability level. Thus, the Flextime group indicated more significant improvement in this item than the Standard Hours group. Alternatively, no significant differences were found among these means concerning the importance of any change in the degree of difficulty in work scheduling.

Non-Management. The probability level of 0.04 for the obtained F ratio, indicated at least one pair of means focusing upon the direction of change in this item was

significantly different. The Standard Hours mean, 2.08 was significantly higher than the Flextime mean of 1.92 at the 0.07 probability level. Thus the Flextime group indicated a slight improvement, whereas the Standard Hours group indicated a slight deterioration in the degree of difficulty in scheduling work requiring others. These groups perceived no significant differences in the importance of any changes in work scheduling.

4. Quality of Communication about Work Assignments

No significant differences concerning either the direction or importance of changes in the quality of communication about work assignments were found among these groups of personnel. This information is presented in Table 34.

5. Ability to Arrange Meetings with Others when Necessary

Total Personnel. Table 35 shows that there was a probability of 0.01 associated with the F ratio, and therefore at least one pair of means was significantly different concerning perceptions of the direction of any changes in this item. The mean for the Standard Hours group 2.06, was significantly higher than the Flextime mean of 1.91 at the 0.02 probability level. Thus the Flextime group indicated some slight improvement in this item, whereas the

Table 34
Scheffé Analysis of Variance for Changes in Organizational Performance
4. Quality of Communication about Work Assignments

Group	DIRECTION OF THE CHANGE									
	Total Personnel					Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean
1. Standard Hours	125	1.98	1,2	0.38	57	1.97	1,2	0.98	65	1.99
2. Compressed Hours	37	1.87	1,3	0.17	6	2.00	1,3	0.97	31	1.84
3. Flexible Hours	209	1.89	2,3	0.97	34	1.94	2,3	0.96	171	1.87
	F. Ratio = 2.06 Probability = 0.13					F. Ratio = 0.06 Probability = 0.94				
						F. Ratio = 2.15 Probability = 0.12				

Group	IMPORTANCE OF THE CHANGE									
	Total Personnel					Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean
1. Standard Hours	119	1.97	1,2	0.69	56	1.96	1,2	0.98	60	1.97
2. Compressed Hours	34	1.88	1,3	0.07 ^c	6	2.00	1,3	0.44	28	1.86
3. Flexible Hours	196	1.93	2,3	0.86	32	1.84	2,3	0.71	161	1.83
	F. Ratio = 2.62 Probability = 0.07					F. Ratio = 0.93 Probability = 0.40				
						F. Ratio = 1.47 Probability = 0.23				

^c Significant at .10 level.

Table 35
Scheffé Analysis of Variance for Changes in Organizational Performance
5. Ability to Arrange Meetings With Others When Necessary

Group	DIRECTION OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	124	2.06	1,2	0.95	57	2.05	1,2	0.33	64	2.08	1,2	0.50
2. Compressed Hours	34	2.03	1,3	0.02 ^a	6	2.33	1,3	0.20	28	1.96	1,3	0.03 ^a
3. Flexible Hours	207	1.91	2,3	0.36	34	1.88	2,3	0.07 ^c	169	1.91	2,3	0.30
	F. Ratio = 4.44 Probability = 0.01				F. Ratio = 3.41 Probability = 0.04				F. Ratio = 3.73 Probability = 0.03			
	^a Significant at .05 level.											
	^c Significant at .10 level.											

Group	IMPORTANCE OF THE CHANGE													
	Total Personnel				Management				Non Management					
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability		
1. Standard Hours	117	1.98	1,2	0.98	56	1.96	1,2	0.26	58	2.00	1,2	0.79		
2. Compressed Hours	34	2.00	1,3	0.56	6	1.67	1,3	1.00	28	2.07	1,3	0.50		
3. Flexible Hours	192	1.93	2,3	0.68	33	1.97	2,3	0.27	156	1.92	2,3	0.26		
F. Ratio = 0.78				Probability = 0.46	F. Ratio = 1.43				Probability = 0.24	F. Ratio = 1.74				Probability = 0.18

Standard Hours personnel noted some deterioration.

Only one pair of means focusing upon the importance of any change were significantly different. The Standard Hours mean, 1.97 was significantly higher than the Flextime mean of 1.83 at the 0.07 probability level. Thus, the Flextime personnel considered this lack of change in quality of communication about work assignments to be more important than Standard Hours personnel.

Management. Further examination of Table 35 revealed that there was at least one pair of means focusing upon the direction of change that was significantly different, because the obtained F ratio had an associated probability of 0.04. The Compressed Hours mean of 2.33 was significantly higher than the Flextime mean of 1.88 at the 0.07 probability level. Thus, the Compressed Hours management perceived some deterioration in the ability to arrange meetings with others whereas Flextime management perceived some improvement. However, further examination of Table 35 revealed that there were no significant differences in perceptions of the importance of these changes.

Non-Management. The information presented in Table 35 disclosed that at least one pair of means related to the direction of change in this variable was significantly different, as the F ratio had an associated probability of 0.03. Thus concerning the direction of change, the Standard

Hours mean, 2.08 was significantly higher than the Flextime mean of 1.91 at 0.03 probability level for this item. Thus the Flextime non-management personnel indicated a more positive change in this variable than the Standard Hours non-management personnel. However, there were no significant differences in group means relating to perceptions of the importance of any change in this item.

6. Availability of Others for 'Spur of the Moment' Discussions or Phone calls

Management. An examination of Table 36 disclosed that at least one pair of management mean scores focusing upon the direction of changes in this variable was significantly different because the F ratio had an associated probability of 0.00. The Standard Hours mean, 2.05 was significantly lower than the Compressed Hours mean of 2.83 at the 0.00 probability level. Furthermore, the Compressed Hours mean 2.83 was significantly higher than the Flextime mean of 2.06 at the 0.00 probability level. Thus the Compressed Hours management perceived more significant deterioration in this item in their branch, than the other management groups. Further examination of Table 36 revealed that there were no significant differences among mean scores related to the importance of this change.

Non-management. Table 36 shows that although there

Table 36
Scheffé Analysis of Variance for Changes in Organizational Performance
6. Availability of Others for 'Spur of the Moment' Discussions or Phone Calls

Group	DIRECTION OF THE CHANGE									
	Total Personnel					Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean
1. Standard Hours	124	2.06	1,2	0.32	57	2.05	1,2	0.00b	64	2.06
2. Compressed Hours	36	2.19	1,3	0.72	6	2.83	1,3	1.00	30	2.07
3. Flexible Hours	208	2.10	2,3	0.56	34	2.06	2,3	0.00b	170	2.10
F. Ratio = 1.17 Probability = 0.31										
b Significant at .01 level.										
						F. Ratio = 8.20	Probability = 0.00		F. Ratio = 0.17	Probability = 0.84

Group	IMPORTANCE OF THE CHANGE									
	Total Personnel					Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean
1. Standard Hours	120	1.94	1,2	0.85	56	1.89	1,2	0.51	61	2.00
2. Compressed Hours	35	2.00	1,3	0.20	6	1.67	1,3	0.91	29	2.07
3. Flexible Hours	194	1.83	2,3	0.21	32	1.94	2,3	0.41	161	1.81
F. Ratio = 2.55 Probability = 0.08										
c Significant at .10 level.										
* Variance not homogeneous at .05 level.										
						F. Ratio = 0.91	Probability = 0.41		F. Ratio = 4.56	Probability = 0.01

were no significant differences among group means relating to the direction of any changes in this variable, there was some disagreement concerning the importance of any perceived change in this item. The F ratio had an associated probability of 0.01. Thus it was found that the Flextime mean, 1.81 was significantly lower than the Standard Hours mean at the 0.07 probability level. Also, the Flextime mean, 1.81 was significantly lower than the Compressed Hours mean of 2.07 at the 0.07 probability level. Thus the Flextime non-management group perceived the lack of change in this item to be more important than the other groups.

Summary. It was found that for 4 of these 6 variables included in factor "Organizational Communication" at least one pair of management means was significantly different concerning the direction of changes in this factor. However, significant differences were obtained among only 2 of these 6 variables within the non-management group. Thus the management personnel indicated a greater awareness of the impact of the allocation of time upon changes in organizational communication.

On the other hand, concerning the importance of changes in Organizational Communication, the management group only disagreed on the importance of changes for one variable, and the non-management group indicated significant differences for two variables. Thus there was a fairly high

degree of consensus concerning the importance of any changes in "Organizational Communication."

Factor B - Work Scheduling

7. Organization of Work

Total Personnel. Table 37 showed that the F ratio had an associated probability of 0.00 and therefore at least one pair of means focusing on the direction of change in this item was significantly different. Further examination revealed that the Flextime mean 1.63 was significantly lower than the Standard Hours mean of 1.89 at the 0.00 probability level. Thus the Flextime group noted considerable improvement in the organization of their work. Further examination of Table 37 disclosed no significant differences among the means related to the importance of this change.

Non-Management. Further examination of Table 37 disclosed that at least one pair of means was significantly different because the obtained F ratio had an associated probability of 0.00. The Flextime mean, 1.59 was significantly lower than the Standard Hours mean of 1.86 at the 0.00 probability level. Thus the Flextime non-management personnel also perceived a significant improvement in the organization of their work.

8. Availability of Office Equipment

Table 37
Scheffé Analysis of Variance for Changes in Organizational Performance
7. Organization of Work

Group	DIRECTION OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	124	1.89	1,2	0.22	57	1.91	1,2	0.92	64	1.86	1,2	0.36
2. Compressed Hours	36	1.72	1,3	0.00 ^b	6	1.83	1,3	0.33	30	1.70	1,3	0.00 ^b
3. Flexible Hours	212	1.63	2,3	0.60	34	1.76	2,3	0.94	174	1.59	2,3	0.52
F. Ratio = 10.32 Probability = 0.00				F. Ratio = 1.12 Probability = 0.33				F. Ratio = 7.07 Probability = 0.00				
b Significant at .01 level.												

Group	IMPORTANCE OF THE CHANGE													
	Total Personnel				Management				Non Management					
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability		
1. Standard Hours	120	1.96	1,2	0.68	57	1.98	1,2	1.00	60	1.92	1,2	0.85		
2. Compressed Hours	34	1.88	1,3	1.00	6	2.00	1,3	0.19	28	1.86	1,3	0.92		
3. Flexible Hours	197	1.88	2,3	0.10 ^c	32	1.81	2,3	0.60	162	1.89	2,3	0.95		
F. Ratio = 1.25				Probability = 0.29	F. Ratio = 1.82				Probability = 0.17	F. Ratio = 0.17				Probability = 0.84

No significant differences concerning either the direction or importance of changes in the "Availability of office equipment" were found among these groups of personnel. This information is presented in Table 38.

9. Desirability of the Branch as a Place to Work

Total Personnel. The information presented in Table 39 indicated that at least one pair of mean scores were significantly different concerning perceptions related to the direction of changes in this item. The obtained F ratio had an associated probability of 0.00. The Standard Hours mean 2.06, was significantly higher than the Compressed Hours mean of 1.68 at the 0.00 probability level. Furthermore, the Standard Hours mean, 2.06 was significantly higher than the Flextime mean of 1.61 at the 0.00 probability level. Thus the two groups involved in altered workweeks perceived their worksites more positively as a desirable place to work, whereas the Standard Hours group indicated a slight deterioration, in the attraction of their branches as a place to work. However, this change was not perceived as significantly different in importance among the three groups of personnel.

Management. Table 39 shows the obtained F ratio had an associated probability of 0.00 indicating that at least one pair of means contained significant differences in the

Table 39

Scheffé Analysis of Variance for Changes in Organizational Performance
9. Desirability of Branch as a Place to Work

Group	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	124	2.06	1,2	0.00 ^b	57	2.07	1,2	0.08	64	2.03	1,2	0.02 ^a
2. Compressed Hours	34	1.68	1,3	0.00 ^b	6	1.67	1,3	0.00 ^b	28	1.68	1,3	0.00 ^b
3. Flexible Hours	201	1.61	2,3	0.79	33	1.70	2,3	0.99	164	1.59	2,3	0.70
F. Ratio = 30.05 Probability = 0.00 F. Ratio = 9.61 Probability = 0.00 F. Ratio = 15.72 Probability = 0.00												

^a Significant at .05 level.

^b Significant at .01 level.

Group	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	117	2.01	1,2	0.88	56	1.98	1,2	0.63	58	2.02	1,2	0.91
2. Compressed Hours	34	2.06	1,3	0.26	6	1.83	1,3	0.98	28	2.07	1,3	0.34
3. Flexible Hours	194	1.91	2,3	0.29	33	2.00	2,3	0.58	159	1.89	2,3	0.29
F. Ratio = 2.07 Probability = 0.13 F. Ratio = 0.55 Probability = 0.58 F. Ratio = 1.92 Probability = 0.15												

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direction of change for this item. The Flextime mean 1.70 was significantly lower than the Standard Hours mean of 2.07 at the 0.00 probability level. However, although the Flextime group indicated a possible improvement in the desirability of the worksites, as a place to work, there were no significant differences found among the groups concerning the importance of this change.

Non-Management. Further examination of Table 39 disclosed that at least one pair of means was significantly different. The direction of change in this item had a probability level of 0.00 associated with the obtained F ratio. It was found that the Standard Hours mean, 2.03 was significantly higher than the Compressed Hours mean of 1.68 at the 0.02 probability level. Also, the Standard Hours mean, 2.03 was significantly higher than the Flextime mean of 1.59 at the 0.00 probability level. Thus both of the non-management groups involved in altered workweeks perceived their branches as more desirable worksites than the Standard Hours group. However, Table 39 showed that there were no significant differences among the groups concerning the perceived importance of this change.

10. Degree of Fatigue Associated with Work Assignments

Total Personnel. The information presented in Table 40 showed that there was at least one pair of means that was

significantly different concerning perceptions of the direction of change in this item. The obtained F ratio had an associated probability of 0.00. The Flextime mean of 1.74 was significantly lower than the Standard Hours mean of 2.07 at the 0.00 probability level. Thus, the Flextime personnel indicated they were somewhat less tired now, whereas the Standard Hours personnel noted an increase in their level of tiredness.

Further examination of Table 40 revealed that there was a probability level of 0.00 associated with the obtained F ratio indicating at least one pair of means was significantly different. The Standard Hours mean 2.04 was significantly higher than both the Compressed Hours mean 1.46 and the Flextime mean of 1.46 at the 0.00 probability level. Thus the groups involved in altered workweeks considered any change in the level of work fatigue to be an important change in factors associated with work scheduling.

Management___. Table 40 shows the F ratio had an associated probability of 0.03 indicating at least one pair of means was significantly different, concerning the nature of change in this item. It was found that the Standard Hours mean 2.11 was significantly higher than the Flextime mean of 1.88 at the 0.05 probability level. Thus the Flextime group perceived a significant improvement in the amount of fatigue associated with work assignment whereas the Standard hour

managers reported some deterioration.

Furthermore, the probability level of 0.00 associated with the F ratio concerning the importance of any change in work fatigue showed some significant differences among the group means. The Standard Hours mean, 2.09 was significantly higher than both the Compressed Hours mean, 1.33 and the Flextime mean 1.77 at the 0.00 probability level. Thus the groups involved in altered workweeks perceived any change in the level of worker fatigue to be of major importance, whereas for the Standard Hours group it was less important.

Non-Management. In addition Table 40 showed that at least one pair of means was significantly different because the obtained F ratio had an associated probability of 0.00. The Flextime mean, 1.70 was significantly lower than the Standard Hours mean of 2.05 at the 0.00 probability level. Thus fatigue levels were perceived as improving for the Flextime group, and deteriorating slightly for the Standard Hours group.

Furthermore, concerning the importance of changes in the level of fatigue Table 40 showed that at least one pair of means was significantly different because the obtained F ratio had an associated probability of 0.00. It was found that the Standard Hours mean of 1.98 was significantly higher than both the Flextime mean 1.39 and the Compressed

Hours mean 1.48 at the 0.00 probability level. Thus the groups involved in altered workweeks perceived changes in fatigue to be more important than the Standard Hours group.

11. Travel to and from Work

Total Personnel. An examination of Table 41 disclosed that the obtained F ratio had an associated probability of 0.00, and thus at least one pair of means was significantly different. Further examination showed that the Standard Hours mean, 2.07 was significantly higher than the Compressed Hours mean of 1.87 at the 0.03 probability level. Also the Standard Hours mean was significantly higher than the Flextime mean of 1.64 at the 0.00 probability level. It is interesting to note however, that the Flextime mean was significantly lower than the Compressed Hours mean at the 0.01 probability level. Thus, travel to and from work had improved most for the Flextime group, but also the Compressed Hours group noted significantly more improvement than the Standard Hours group who noted some deterioration in this item. However, concerning the importance of this change the Flexible Hours mean 2.05 was significantly higher than the Standard Hours mean of 1.92 at the 0.10 probability level. Thus the Standard Hours personnel considered this change in travel to and from work to be more important than Flextime personnel.

Management. Table 41 discloses that there was at least one pair of means that were significantly different concerning the direction of the change. The F ratio had an associated probability of 0.00. Further investigation revealed that the Flextime mean, 1.79 was significantly lower than the Standard Hours mean of 2.05 at the 0.00 probability level. Thus, the Flextime group noted a significant improvement in travel to and from work. Furthermore, there were at least one pair of means that were significantly different concerning the importance of the change. There was a probability of 0.02 associated with obtained F ratio. The Standard Hours mean 1.93 was significantly lower than the Flextime mean of 2.21 at the 0.06 probability level. Thus the Standard Hours group perceived changes in travel to and from work as more important than the Flextime group. Also, the Flextime mean, was significantly higher than the Compressed Hours mean of 1.67 at the 0.07 probability level. Thus the Compressed Hours management also perceived changes in travel to and from work to be more important than Flextime management.

Non-Management. Further examination of Table 41 disclosed that the F ratio had an associated probability of 0.00 and thus at least one pair of means concerning the nature of change in this item were significantly different. Further examination showed that the Standard Hours mean, 2.09 was significantly higher than the Compressed Hours mean

of 1.84 at the 0.05 probability level. Also the Standard Hours mean was significantly higher than the Compressed Hours mean of 1.61 at the 0.00 probability level. It is interesting to note that the Flextime mean was significantly lower than the Compressed Hours mean at the 0.04 probability level. Thus both of the groups involved in innovations in the management of time perceived significant improvement in travel to and from work, whereas the Standard Hours group noted some deterioration. However, the largest improvement was recorded by the Flextime group. Despite this improvement there were no significant differences among the mean scores relating to the importance of this change.

Summary. The findings disclosed that for means relating to the direction of changes in the factor "Work Scheduling" significant differences were obtained among management perceptions for 3 of these 5 variables. However, significant differences were obtained for only 2 of these variables for the non-management group. Thus the management group tended to perceive a slightly greater impact associated with the changes in the allocation of time upon "Work Scheduling".

Alternatively, concerning the importance of these changes there was a fairly high degree of consensus within each group. Only one variable contained significant differences among the non-management groups mean scores and

two variables contained significant differences for the management groups' mean scores.

Factor C - Service to the Public and Other Departments

12. Service to other Branches and Departments

Total Personnel. There were no significant differences among group means focusing upon the direction of changes in the level of public service. However, regarding the importance of any change in this item the F ratio had an associated probability of 0.00. This indicated that at least one pair of means was significantly different. The Standard Hours mean 2.14 was significantly higher from the Compressed Hours mean 1.43 and the Flextime mean 1.57 at the 0.00 probability level. Thus the two groups involved in altered workweeks considered any change in service to other departments arising from the adoption of a change in the workweek structure to be very important.

Management. There were no significant differences among management means related to this item as all groups noted some improvement. However, concerning the importance of any change in service to other branches there was at least one pair of means that was significantly different. The F ratio had an associated probability of 0.00. The Standard Hours mean of 2.23, was significantly higher than both the Compressed Hours mean, 1.50 and the Flextime mean of 1.50 at the .01 probability level. Thus the management

personnel involved in altered workweeks considered changes in service to other branches and departments to be of major importance, whereas Standard Hours management tended to perceive such changes as being of less importance.

Non-Management. There were no significant differences among the means relating to the direction of change in this item.

However, further examination of Table 42 revealed that at least one pair of means concerning the importance of changes in this item was significantly different. The obtained F ratio had an associated probability of 0.00. It was found that the Standard Hours mean of 2.05 was significantly higher than both the Compressed Hours mean, 1.42 and the Flextime mean of 1.51 at the 0.00 probability level.

Thus the non-management groups involved in innovations in the management of time perceived changes in service to other branches and departments to be more significant than the Standard Hours group who tended to perceive such changes as minor in importance.

13. Service a Branch Provides to the Public

Total Personnel. There were no significant differences among means concerning the nature of changes

relating to the provision of service to the public as all groups noted improvements. Alternatively, there were some significant differences among means relating to the importance of any changes in the provision of service to the public, as the F ratio had an associated probability of 0.00. The Standard Hours mean, 2.13 was significantly higher than both the Compressed Hours mean, 1.51 and the Flextime mean of 1.77 at the 0.00 probability level. Thus changes in the provision of service to the public was perceived to be of major importance to the innovative groups but tended to be less important to the Standard Hours branches.

Management. Management means focusing upon the direction of change in this item were not significantly different as all recorded improvements. However, there were some significant differences among mean scores related to the importance of changes in this item. The Standard Hours mean 2.19 was significantly higher than the Compressed Hours mean of 1.50 at the 0.00 probability level. Also the Standard Hours mean was significantly higher than the Flextime mean of 1.94 at the 0.05 probability level. Thus management personnel involved in altered workweeks perceived changes in service to the public to be more important than Standard Hours management who attributed less importance to such changes.

Non-Management. The obtained F ratio had an

associated probability of 0.01 indicating at least one pair of means focusing upon changes in the level of service to the public was significantly different. The Standard Hours mean, 1.94 was significantly higher than the Flextime mean of 1.71 at the 0.01 probability level, indicating the latter group noted the greatest improvement. However, all groups noted some improvement in the provision of service to the public.

Furthermore, Table 43 disclosed that the F ratio had an associated probability of 0.00 for means focusing upon the importance of any changes in the provision of service to the public. Thus, the Standard Hours mean 2.05 was found to be significantly higher than both the Compressed Hours mean, 1.52 and the Flextime mean of 1.73 at the 0.00 probability level. Here again the groups involved in restructured workweeks perceived changes in the provision of service to the public to be of major importance, whereas the Standard Hours group attributed less importance to this item.

Client Perceptions of Service to the Public. In addition to the above analysis, a small sample of clients for these branches were surveyed to determine if they perceived any changes in the service these branches provide to the public. A summary of these findings is presented in Appendix F.

Compressed Hours Group. Firstly, concerning changes

in the nature of service to the public all the clients considered that there had been no changes in (1) Availability of specific personnel with whom they communicate, and (3) Ability to arrange meetings with specific personnel when necessary. Thus, there had also been no change in the importance of these two items.

Secondly, it was found that for the remaining three items, 33.3% of the clients emphasized some deterioration in the level of public service, whereas the remainder indicated no change at all. These were: (2) Availability of personnel for spur of the moment discussions or phone calls, (4) Quality of communication about work assignments and (5) Quality of service provided by this branch. In all of these cases the clients emphasized that there had been no changes in the importance of these variables.

Flexible Hours Group. Firstly, concerning changes in the nature of service to the public 40% of respondents considered that (1) The availability of specific personnel with whom they must communicate, had deteriorated. Alternatively 20% of respondents indicated an improvement and 40% indicated no change in this variable. Furthermore, 40% of the respondents considered any change in this variable to be of major importance, whereas 20% of respondents considered changes in the availability of specific personnel to be of minor importance.

Secondly, it was found that 60% of respondents noted that there had been some deterioration in (2) The availability of perscnnel for spur of the mcment discussions or phone calls, whereas 20% noted some improvement and a further 20% of respondents indicated no change in this item. For this variable it was found that 40% considered any changes to be of major importance and a further 40% considered changes to be of minor importance. Finally, concerning changes in (3) Ability to arrange meetings with specific personnel when necessary, the Flexible Hours clients indicated that the nature of the service had not changed since the Flexible Hours system had been implemented.

However, for variables (4) Quality of communication about work assignments and (5) Quality of service provided by this branch, 20% of the clients indicated an improvement in the nature of these services since Flextime had been implemented in these branches. Similarly, 20 percent of the clients considered this change to be of major importance. For each of these 3 variables, 20% of the client respondents considered any change to be of major importance, whereas the remainder indicated no change in the importance of these variables.

Summary. The findings disclosed that for means associated with changes in the factor "Service to the

Public" no significant differences were found among management means for both of these items. However, significant differences were found for one of the variables for the non-management group. Thus, service to the public was considered to have experienced slightly greater impact arising from alterations in the workweek by non-management respondents.

Alternatively, significant differences were obtained for both management and non-management respondents concerning the importance of these changes in the provision of service to the public. Thus both groups indicated a lack of consensus concerning the importance of any changes in the level of service to the public. Finally, clients of both of these groups indicated some changes in the provision of service to the public, but in most cases the majority of respondents indicated no change at all.

Factor D - Availability of Dining Facilities

14. The Availability of Services such as Dining Rooms, Elevators and Cafeterias

Total Personnel. The information presented in Table 44 showed that at least one pair of means was significantly different concerning the direction of change in this item. The F ratio had an associated probability of 0.00. Further analysis revealed that the Standard Hours mean, 1.04 was

Scheffé Analysis of Variance for Changes in Organizational Performance

15. The Availability of Services such as Dining Rooms, Elevators and Cafeterias

Group	DIRECTION OF THE CHANGE											
	Total Personnel*				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	124	2.04	1, 2	0.39	57	2.04	1, 2	0.45	64	2.06	1, 2	0.36
2. Compressed Hours	37	1.92	1, 3	0.00 ^b	6	1.83	1, 3	0.08	31	1.90	1, 3	0.00 ^b
3. Flexible Hours	206	1.72	2, 3	0.06 ^c	34	1.85	2, 3	0.99	169	1.69	2, 3	0.09 ^c
F. Ratio = 18.44 Probability = 0.00 F. Ratio = 2.91 Probability = 0.06 F. Ratio = 13.51 Probability = 0.00												
b Significant at .01 level.												
* Variance not homogeneous at .05 level. c Significant at .10 level.												

Group	IMPORTANCE OF THE CHANGE												
	Total Personnel*				Management				Non Management				
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	
1. Standard Hours	120	2.18	1,2	0.00 ^b	57	2.19	1,2	0.00 ^b	61	2.16	1,2	0.00 ^b	
2. Compressed Hours	37	1.27	1,3	0.00 ^b	6	1.50	1,3	0.00 ^b	31	1.23	1,3	0.00 ^b	
3. Flexible Hours	209	1.37	2,3	0.54	34	1.74	2,3	0.53	172	1.30	2,3	0.76	
				F. Ratio = 112.71	Probability = 0.00					F. Ratio = 13.42	Probability = 0.00		
b Significant at .01 level.													
* Variance not homogeneous at .05 level.													

significantly higher than the Flextime mean 1.72 at the 0.00 probability level. Thus the Flextime group noted more significant improvement in the availability of these services.

In addition, concerning the importance of changes in this item Table 44 showed that at least one pair of means was significantly different. The F ratio had an associated probability of 0.00. The Standard Hours mean 2.18 was significantly higher than both the Compressed Hours mean 1.27 and the Flextime mean of 1.37 at the 0.00 probability level. Thus both the innovative groups regarded changes in these services to be of major importance, whereas the Standard Hours group attributed less importance to such changes.

Management. All groups indicated little change in this item. However, concerning the importance of this lack of change in this item there were significant differences among the mean scores. The obtained F ratio had an associated probability of 0.00. The Standard Hours mean, 2.19 was significantly higher than both the Compressed Hours mean, 1.50 and the Flextime mean 1.74 at the 0.00 probability level. Thus the management groups involved in altered workweeks perceived changes in the provision of these services to be more important, than the Standard Hours managers.

Ncn-Management. Table 44 showed the obtained F ratio had an associated probability of 0.0, and therefore at least one pair of means was significantly different. The Standard Hours mean, 2.06 was significantly higher than the Flextime mean of 1.69 at the 0.00 probability level. The obtained homogeneity of variance chi-square indicated that the variances for this item were not homogeneous at the .05 level of significance.

Furthermore, Table 44 showed that at least one pair of means focusing upon the importance of changes in this item was significantly different as the F ratio had an associated probability of 0.00. The Standard Hours mean of 2.16 was significantly higher than both the Compressed Hours mean, 1.23 and the Flextime mean of 1.30 at the 0.00 probability level. Thus the innovative groups perceived changes in this item to be of major importance, whereas the Standard Hours group tended to attach minor importance to such changes.

E. Other Variables.

This variable loaded across more than one factor using .4 as a cut off point for the factor analysis. However, it represented an important aspect of organizational operation that may be affected by alterations in the structuring of the workweek.

15. Overall Work Performance

Total Personnel. The information presented in Table 45 showed that there were significant differences in mean scores relating to the direction of changes in this item. The F ratio had an associated probability of 0.00. It was found that the Standard Hours mean of 1.80 was significantly higher than the Compressed Hours mean of 1.54 at the 0.02 probability level. Also the Standard Hours mean was significantly higher than the Flextime mean of 1.57 at the 0.00 probability level. Thus although all groups noted improved performance, the groups involved in altered workweeks indicated significantly greater improvement. However, no significant differences concerning the importance of this change were found among the groups.

Non-Management. Further examination of Table 45 showed that concerning the direction of change at least one pair of means was significantly different. The F ratio had an associated probability of 0.00. It was found that the Standard Hours mean 1.80 was significantly higher than the Compressed Hours mean of 1.48 at the 0.03 probability level. In addition the Standard Hours mean was significantly higher than the Flextime mean, 1.53 at the 0.00 probability level. Thus both the innovative groups perceived greater improvement in overall performance since the adoption of their innovative workweeks. However, there were no

Scheffé Analysis of Variance for Changes in Organizational Performance
14. Overall Work Performance

Group	DIRECTION OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	124	1.80	1,2	0.02 ^a	57	1.81	1,2	0.99	64	1.80	1,2	0.03 ^a
2. Compressed Hours	37	1.54	1,3	0.00 ^b	6	1.83	1,3	0.50	31	1.48	1,3	0.00 ^b
3. Flexible Hours	210	1.57	2,3	0.96	33	1.70	2,3	0.77	173	1.53	2,3	0.90
	F. Ratio = 9.14 Probability = 0.00				F. Ratio = 0.78 Probability = 0.46				F. Ratio = 6.65 Probability = 0.00			

a Significant at .05 level.
b Significant at .01 level.

Group	IMPORTANCE OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	118	1.93	1,2	0.99	56	1.95	1,2	0.96	59	1.92	1,2	0.99
2. Compressed Hours	34	1.94	1,3	0.93	6	2.00	1,3	1.00	28	1.93	1,3	0.99
3. Flexible Hours	196	1.91	2,3	0.94	33	1.94	2,3	0.95	160	1.91	2,3	0.97
	F. Ratio = 0.10 Probability = 0.90				F. Ratio = 0.05 Probability = 0.95				F. Ratio = 0.03 Probability = 0.97			

significant differences in the mean scores relating to the importance of this change.

Summary. The information contained in Table 46 presented a summary of the significant differences between the obtained mean scores for the Standard, Compressed and Flexible Hours groups as determined by the Scheffe Multiple Comparison of Means Test for two aspects of changes in organizational performance: (1) The direction of change and (2) The importance of change.

Total Personnel. Statistically significant differences were found among means for 8 of the 15 items related to the direction of changes that have occurred as determined by the perceptions of the total personnel in all groups. It is important to note that in only one case was there a significant difference between the Compressed and Flexible Hours mean scores. This was (11) Travel to and from work. In all of these other cases the Standard Hours group was significantly different from one of the groups involved in altered workweeks.

In addition statistically significant differences were found among 5 of the items concerning the importance of changes in organizational performance. In none of these instances were any significant differences between Flextime and Compressed Hours means obtained.

Table 46

Summary of Differences Between Pairs of Group Means for Organizational Performance

	Direction of Change			Importance of Change		
	Total Personnel	Management	Non Management	Total Personnel	Management	Non Management
Factor A. Organizational Communication						
1. Availability of people with whom you must work	-	S/C ^a	-	S/F ^b	S/F ^b	S/F ^b
2. Degree of participation in decisions about work assignments	-	S/F ^a	-	-	-	-
3. Degree of difficulty in scheduling work requiring others	S/F ^a	-	S/C ^a	-	-	-
4. Quality of communication about work assignments	-	-	-	-	-	-
5. Ability to arrange meetings with others when necessary	S/F ^a	C/F ^a	S/F ^a	-	-	-
6. Availability of others for 'spur of the moment' discussions or phone calls	-	S/C ^a , S/F ^a	-	-	-	S/F ^b , C/F ^b
Factor B. Work Scheduling						
7. Organization of your work	S/F ^a	-	S/F ^a	-	-	-
8. Availability of office equipment	-	-	-	-	-	-

Table 46 cont'd

	Direction of Change		Importance of Change	
	Total Personnel	Non Management	Total Personnel	Non Management
9. Desirability of re-spondent's Department as a place to work	S/C ^a , S/F ^a	S/F ^a	S/C ^a , S/F ^a	-
10. Degree of fatigue associated with your daily work assignments	S/F ^a	S/F ^a	S/F ^b , S/C ^b	S/F ^b , S/C ^b
11. Travel to and from work	S/C ^a , S/F ^a , C/F ^a	S/F ^a	S/C ^a , S/F ^a , C/F ^a	S/F ^b
Factor C. Service to the Public				-
12. The service your department provides to other departments	-	-	S/C ^b , S/F ^b	S/C ^b , S/F ^b
13. The service your department provides to the public	-	-	S/F ^a	S/C ^b , S/F ^b
D. Other Variables				-
14. Your over-all work performance	S/C ^a , S/F ^a	-	S/C ^a , S/F ^a	-
15. The availability of services such as dining rooms, elevators and cafeterias	S/F ^a	-	S/F ^a	S/C ^b , S/F ^b

^a Lowest Mean = Most Improvement

^b Lowest Mean = Most important change

S = Standard Hours,

C = Compressed Hours, F = Flexible Hours

N.B. All differences significant at .05 level.

Management. Table 46 showed that statistically significant differences were found among the means for 7 of the 15 items related to the direction of change in organizational performance. In only one case, (5) Ability to arrange meetings with others when necessary, was a significant difference obtained between the Flextime and Compressed Hours management mean scores.

Furthermore, significant difference were found among 6 of the items concerning mean scores related to the importance of changes in organizational performance. Here again, no significant differences were found between the Flextime and Compressed Hours mean scores.

Non-Management. Further examination of Table 46 showed that statistically significant differences related to perceptions for the direction of changes in organizational performance was found among 9 of the 15 items. Similarly, only one variable showed a statistically significant difference between the Flextime and Compressed Hours mean scores. This was (11) Travel to and from work. In all other cases the Standard Hours group was significantly different from one or other of the altered workweek groups.

In addition, for mean scores relating to the importance of changes in items relating to organizational performance significant differences were found among 6 of the 15 items. No significant differences concerning the

importance of these changes were found between Flextime and Compressed Hours non-management personnel.

CHAPTER SUMMARY

This chapter examined inter-group comparisons of responses concerning perceptions of job satisfaction and organizational performance.

First, it was found that the two groups involved in innovations in the management of time indicated higher levels of job satisfaction, than the Standard Hours group. These differences were most evident when analyzing the perceptions of non-management personnel, as the management personnel did not indicate many significant changes.

Secondly, a considerable number of significant differences were obtained among the three groups concerning perceptions related to both the direction of change, and the importance of change for the variables related to organizational performance. However, both management and non-management personnel noted a number of changes in these items related to organizational performance.

Chapter 5 will examine inter-group comparisons concerning: (1) family interaction and personal relationships, (2) Commuting patterns and (3) Leisure activities.

CHAPTER 5

RESEARCH FINDINGS: INTER-GROUP ANALYSIS OF ALTERATIONS IN THE WORKWEEK AND ORGANIZATIONAL CHANGE

The first section of this chapter examines the effects of innovations in the management of time upon family interaction and personal relationships. Secondly, this chapter focuses upon the impact of re-structuring the workweek upon leisure activities. Finally, this chapter analyses the relationship between innovations in the management of time and changes in commuting and parking arrangements.

ALTERATIONS IN THE WORKWEEK AND CHANGES IN FAMILY INTERACTION AND PERSONAL RELATIONSHIPS.

This phase focused upon the adoption of innovations in the management of time and the effects upon family interaction and family relationships. The factor analysis contained in Appendix G showed inter-relationships among the following four items.

Factor A - Family Interaction and Personal Relationships

1. Management of Family Affairs

Total Personnel. The information presented in Table 47 revealed that at least one pair of means focusing upon the direction of change was significantly different for this

item. The obtained F ratio had an associated probability of 0.00. Further examination showed the Standard Hours mean, 1.96 was significantly higher than the Flextime mean of 1.81 at the 0.04 probability level. Furthermore, the Flextime mean was significantly lower than the Compressed Hours mean of 2.06 at the 0.04 probability level. Thus, the Compressed Hours group noted significant deterioration in their ability to manage family affairs, while the Flextime group noted greater improvement, than the Standard Hours group.

In addition Table 47 shows that the F ratio had an associated probability of 0.00, and therefore at least one pair of means focusing on the importance of this change was significantly different. It was found that the Standard Hours mean of 1.89 was significantly higher than both the Compressed Hours mean, 1.54 and the Flextime mean of 1.68 at the 0.01 probability level. All groups considered changes in this item to be important but they were perceived as significantly more important by the groups involved in altered workweeks.

Management. Table 47 discloses that there were no significant differences among management means related to the direction of changes concerning the management of family affairs. However, at least one pair of means focusing on the importance of changes in this item was significantly different because the F ratio had an associated probability of 0.01. It was found that the Standard Hours mean of 1.91

was significantly higher than the Compressed Hours mean of 1.33 at the 0.01 probability level. In addition the Compressed Hours mean was significantly lower than the Flextime mean of 1.79 at the 0.05 probability level. Thus the Compressed Workweek group considered this lack of change in the management of family affairs to be very important, whereas, Flextime and Standard Hours managers attributed less importance to this lack of change.

Non-Management. Table 47 discloses that there was at least one pair of means for the non-management group that perceived a significant difference in the direction of change related to the management of family affairs. The F ratio had an associated probability of 0.01. It was found that the Compressed Hours mean, 2.07 was significantly higher than the Flextime mean of 1.77 at the 0.03 probability level. Thus the Flexible Hours group noted an improvement in the management of family affairs, that was statistically significant. Furthermore, concerning the importance of changes in this item, there was at least one pair of means that was significantly different. The F ratio had an associated probability of 0.04. It was found that the Standard Hours mean of 1.86 was significantly higher than the Flextime mean of 1.61 at the 0.05 probability level. Thus the Flextime group considered changes in the management of family affairs to be significantly more important than the Standard hours group.

2. Amount of Time Spent With Family

An examination of Table 48 showed the means focusing upon the direction of change in this item were not significantly different. Furthermore no significant differences were obtained among the means related to the importance of changes in the amount of time spent with the family.

3. Amount of Time Spent With Friends

Management. Table 49 showed that the means associated with the direction of changes in this item were not significantly different. However, at least one pair of means focusing upon the importance of changes in this item was significantly different, as the obtained F ratio had an associated probability of 0.02. It was found that the Standard Hours mean, 1.95 was significantly lower than the Compressed Hours mean of 2.50 at the 0.03 probability level. Also the Compressed Hours mean was significantly higher than the Flextime mean of 1.94 at the 0.03 probability level. Thus the Compressed Hours management group considered the amount of time spent with friends to be considerably less important than the other two groups.

4. Time Available to Organize Personal Business Affairs

Total Personnel. An examination of the data presented in Table 50 showed that at least one pair of means related to the direction of changes in this item was

Table 48
Scheffé Analysis of Variance for Changes in Family Interaction and Personal Relationships
2. Amount of Time Spent with Family

Group	DIRECTION OF THE CHANGE											
	Total Personnel					Management						
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	120	1.98	1,2	0.63	57	2.02	1,2	0.68	60	1.95	1,2	0.90
2. Compressed Hours	33	1.88	1,3	0.20	6	1.83	1,3	0.76	27	1.89	1,3	0.54
3. Flexible Hours	204	1.88	2,3	0.99	33	1.94	2,3	0.89	168	1.85	2,3	0.95
F. Ratio = 1.69 Probability = 0.19					F. Ratio = 0.57 Probability = 0.57					F. Ratio = 0.63 Probability = 0.53		

Table 49
Scheffé Analysis of Variance for Changes in Family Interaction and Personal Relationships
3. Amount of Time Spent with Friends

Group	DIRECTION OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	119	2.01	1,2	0.96	57	2.05	1,2	0.42	59	1.95	1,2	0.63
2. Compressed Hours	34	2.03	1,3	0.69	6	1.83	1,3	0.82	28	2.04	1,3	0.97
3. Flexible Hours	196	1.97,	2,3	0.70	33	2.00	2,3	0.62	160	1.96	2,3	0.66
	F. Ratio = 0.59 Probability = 0.56				F. Ratio = 0.96 Probability = 0.39				F. Ratio = 0.50 Probability = 0.61			

Group	IMPORTANCE OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	112	1.91	1,2	0.95	55	1.95	1,2	0.03 ^a	55	1.89	1,2	0.86
2. Compressed Hours	34	1.94	1,3	0.99	6	2.50	1,3	1.00	28	1.82	1,3	0.97
3. Flexible Hours	194	1.92	2,3	0.97	33	1.94	2,3	0.03 ^a	159	1.91	2,3	0.72
	F. Ratio = 0.04 Probability = 0.96				F. Ratio = 3.92 Probability = 0.02				F. Ratio = 0.34 Probability = 0.72			
	^a Significant at .05 level.											

^a Significant at .05 level.

Scheffé Analysis of Variance for Changes in Family Interaction and Personal Relationships

Group	DIRECTION OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	118	1.95	1,2	0.02 ^a	56	2.02	1,2	1.00	59	1.90	1,2	0.04 ^a
2. Compressed Hours	34	1.62	1,3	0.07 ^c	6	2.00	1,3	0.99	28	1.54	1,3	0.28
3. Flexible Hours	198	1.79	2,3	0.28	31	2.03	2,3	0.99	164	1.75	2,3	0.23
F. Ratio = 5.02 Probability = 0.01 - F. Ratio = 0.01 Probability = 0.99 F. Ratio = 3.40 Probability = 0.04												
a Significant at .05 level. c Significant at .10 level.												

Group	IMPORTANCE OF THE CHANGE											
	Total Personnel				Management				Non Management			
	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability	N	Mean	Pairs of Groups	Probability
1. Standard Hours	111	1.96	1,2	0.00 ^b	55	1.98	1,2	0.09	54	1.96	1,2	0.00 ^b
2. Compressed Hours	36	1.39	1,3	0.00 ^b	6	1.50	1,3	0.81	30	1.37	1,3	0.00 ^b
3. Flexible Hours	202	1.61	2,3	0.16	33	1.91	2,3	0.20	167	1.54	2,3	0.43
F. Ratio = 15.88 Probability = 0.00				F. Ratio = 2.49 Probability = 0.09				F. Ratio = 10.50 Probability = 0.00				
b Significant at .01 level.												

significantly different as the F ratio had an associated probability of 0.01. It was found that the Standard Hours mean, 1.95 was significantly higher than the Compressed Hours mean of 1.62 at the 0.02 probability level. Thus the Compressed Hours group noted more significant improvement in time available to organize their personal business affairs. Also, the Standard Hours mean was significantly higher than the Flextime mean of 1.79 of the 0.07 probability level and thus the Flextime personnel also noted more improvement in time available to organize their personal business affairs.

Furthermore, significant differences were found among mean scores related to the importance of changes in this item as the F ratio had an associated probability of 0.00. The Standard Hours mean, 1.96 was significantly higher than both the Compressed Hours mean, 1.39 and the Flextime mean of 1.61 at the 0.00 probability level. Thus the two innovative groups perceived time available to organize your personal affairs to be considerably more important than the Standard Hours group. For both of the above F ratios the obtained homogeneity of variance chi-square indicted the variances for these items were not homogenous at the .05 level of significance.

Non-Management. Table 50 discloses that at least one pair of means related to the direction of change in this item was significantly different as there was a probability of 0.04 associated with the obtained F ratio. It was found

that the Standard Hours mean, 1.90 was significantly higher than the Compressed Hours mean of 1.54 at the 0.04 probability level. Thus, the Compressed Hours group indicated a greater improvement in time available to organize personal business affairs.

Similarly, significant differences were also obtained for mean scores related to the importance of changes in the amount of time available for personal business affairs. The Standard Hours mean, 1.96 was significantly higher than both the Compressed Hours mean, 1.37 and the Flextime mean of 1.54 at the 0.00 probability level. Thus the two innovative groups attributed significantly more importance to changes in the amount of time available to conduct personal business than the Standard Hours group did.

Summary. A summary of the significant differences found among the mean scores relating to the items included in the factor concerning family interaction and personal relationships is presented in Table 51.

Total_____Personnel. Statistically significant differences were found among two of the four items concerning the direction of changes relating to this factor. Furthermore, significant differences were also found among mean scores for the same two items concerning the importance of changes associated with this factor.

Management. Additional reference to Table 51 showed

Table 5i

Summary of Differences for Pairs of Group Means Related to Family Interaction and Personal Relationships

	Direction of Change		Importance of Change	
	Total Personnel	Non Management	Total Personnel	Non Management
Factor A - Family Interaction and Personal Relationships				
Management of your family affairs	S/Fa, C/Fa	-	C/Fa	S/Cb, F/Cb
Amount of time spent with family	-	-	-	S/Fb
Amount of time spent with friends	-	-	-	-
Time available to organize your personal business affairs	-	-	-	C/Sb, C/Fb
	S/Ca	-	S/Ca	S/Cb, S/Fb

a Lowest Mean = Most improvement

b Lowest Mean = Most important change

S = Standard Hours, C = Compressed Hours, F = Flexible Hours

N.B. All differences significant at .05 level.

that significant differences were not found among any of the means related to items associated with the direction of changes in this factor. However, significant differences were found among mean scores for 2 items concerning the importance of changes in this factor.

Non-Management. Table 51 also showed that significant differences were found among the mean scores related to two items concerning the direction of changes in this factor. Similarly, significant differences were found among means associated with the same two items, concerning the importance of changes in this factor.

ALTERATIONS IN THE WORKWEEK AND CHANGES IN LEISURE ACTIVITIES

Poor (1973:85) commenting on the relationship between innovations in the management of time and leisure activities stated:

In an article in which he discussed the effects of automation upon leisure time, William Faunce suggested that with increased leisure time workers would probably seek more creative and service oriented outlets for their energies, inasmuch as there would be a decrease in the proportion of their free time needed to recuperate from work. He further hypothesized that more free time would enable workers to acquire the skills necessary for engaging in participant activities, resulting in a decrease in spectator activities.

The data gathered in this study provided an

opportunity to compare Faunce's hypothetical results with those collected from empirical research. Tables 52, 53, and 54 presented a frequency and percentage distribution outlining the changes reported in leisure activities by each of these three groups. In the following analysis differences among the groups concerning their perceptions of change in leisure activities were considered to be important where there was at least a 20 percent disagreement among at least two groups of respondents.

(a) Creative Activities

An examination of the information presented in Tables 52, 53, and 54, showed that the groups that have adopted innovative workweek structures reported an important decline in their degree of participation in creative activities, as compared to the Standard Hours group reactions.

Travel. The two innovative groups indicated a large decrease in travel activities since the adoption of their respective innovations in the management of time. In the Flextime group 38.6 percent of respondents reported a decline in travel participation, and 45.2 percent of the Compressed Hours group also reported decreased participation in this activity. However, only 7.9 percent of the Standard Hours group indicated a decrease in their travel habits.

Table 52

Frequency and Percentage Distribution for Changes
in Leisure Activities - Standard Hours Group

5 day week with standard hours 12 months ago		Standard hours over the last 6 months		
		Increased Participation	Same Participation	Decreased Participation
N		%	%	%
<u>Creative Activities</u>				
77	Travel	22.4	69.7	7.9
80	Other hobbies	14.3	66.2	19.5
77	Read more	19.7	64.5	15.8
27	Go back to school or learn a trade	10.0	63.3	26.7
<u>Service Oriented Activities</u>				
	Active in school boards, P.T.A.,			
23	Boy Scouts, etc.	16.7	75.0	8.3
25	Joined social club	19.2	65.4	11.5
11	Engaged in politi- cal action work	-	100.0	-
50	Church activities	14.0	72.0	14.0
<u>Participant Activities</u>				
100	Work around the house	10.1	72.7	17.2
33	Fishing and hunting	26.3	68.4	5.3
	Engage in some form of athletics (bowl- ing, golf, baseball, etc.)	25.5	61.8	12.7
56	Swimming, boating	15.6	68.9	15.5
46	Got another part- time job	5.9	82.4	5.9
15	Work on car	10.3	82.1	7.7
37				
<u>Spectator Activities</u>				
	Go to ballgames, fights, hockey games, etc.	14.3	61.9	23.8
40	Watch television a lot	25.5	74.5	-
53	Attend movies, thea- tre, concerts, etc.	16.2	70.3	13.5
74				
<u>Social Communication Activities</u>				
	Spend time with family	15.0	70.0	15.0
101	Visit relatives	21.0	71.0	8.1
62				
<u>Other Activities</u>				
	Bought or buying vacation home	-	84.2	15.8
18	Bored with free time	18.8	81.3	-
16	Rest, relax, loaf, etc.	24.1	70.9	5.1
81				

Table 53

**Frequency and Percentage Distribution for Changes
in Leisure Activities - Compressed Hours Group**

Before the CWV 5 day week with standard hours		Since introduction of the CWV		
		Increased Participation	Same Participation	Decreased Participation
N		%	%	%
<u>Creative Activities</u>				
28	Travel	3.2	51.6	45.2
25	Other hobbies	4.3	43.5	52.2
26	Read more	-	32.0	68.0
11	Go back to school or learn a trade	10.0	50.0	40.0
<u>Service Oriented Activities</u>				
	Active in school boards, P.T.A., Boy Scouts, etc.	-	66.7	33.3
3				
2	Joined social club	-	100.0	-
	Engaged in politi- cal action work	-	100.0	-
2				
8	Church activities	-	85.7	14.3
<u>Participant Activities</u>				
	Work around the house	2.9	34.3	62.9
35				
10	Fishing and hunting	-	58.3	41.7
	Engage in some form of athletics (bowl- ing, golf, baseball, etc.)	-	43.8	56.3
15				
12	Swimming, boating	7.7	53.8	38.5
	Got another part- time job	-	75.0	25.0
2				
7	Work on car	-	42.9	57.1
<u>Spectator Activities</u>				
	Go to ballgames, fights, hockey games, etc.	-	73.3	26.7
14				
23	Watch television a lot	4.2	75.0	20.8
	Attend movies, thea- tre, concerts, etc.	-	80.0	20.0
25				
<u>Social Communication Activities</u>				
	Spend time with family	3.2	32.3	64.5
31				
23	Visit relatives	4.2	58.3	37.5
<u>Other Activities</u>				
	Bought or buying vacation home	14.3	71.4	14.3
6				
4	Bored with free time	75.0	25.0	-
	Rest, relax, loaf, etc.	5.9	55.9	38.2
35				

Table 54

**Frequency and Percentage Distribution for Changes
in Leisure Activities - Flexible Hours Group**

Before flexitime 5 day week with standard hours		Since introduction of flexitime		
		Increased Participation	Same Participation	Decreased Participation
N		%	%	%
<u>Creative Activities</u>				
139	Travel	2.1	59.3	38.6
136	Other hobbies	2.3	48.9	48.9
139	Read more	2.2	43.4	54.4
51	Go back to school or learn a trade	7.0	57.9	35.1
<u>Service Oriented Activities</u>				
	Active in school boards, P.T.A.,			
42	Boy Scouts, etc.	2.1	70.2	27.7
26	Joined social club	3.2	71.0	25.8
	Engaged in politi- cal action work	7.4	88.9	3.7
64	Church activities	1.5	74.6	23.9
<u>Participant Activities</u>				
177	Work around the house	2.2	56.4	41.3
45	Fishing and hunting	9.1	65.5	25.5
	Engage in some form of athletics (bowl- ing, golf, baseball, etc.)	2.4	63.9	33.7
71	Swimming, boating	4.0	69.3	26.7
	Got another part- time job	16.7	83.3	-
44	Work on car	4.4	62.2	33.3
<u>Spectator Activities</u>				
	Go to ballgames, fights, hockey games, etc.	6.9	79.3	13.8
92	Watch television a lot	13.3	71.1	15.6
116	Attend movies, thea- tre, concerts, etc.	4.2	73.9	21.8
<u>Social Communication Activities</u>				
170	Spend time with family	1.2	48.8	50.0
97	Visit relatives	1.0	69.0	30.0
<u>Other Activities</u>				
32	Bought or buying vacation home	9.1	69.7	21.2
29	Bored with free time	34.5	62.1	3.4
145	Rent, relax, loaf, etc.	4.9	54.2	40.8

On the other hand, an important difference was also obtained concerning increased participation in travel activities. It was found that 22.4 percent of the Standard hours respondents noted an increase in travel activities, whereas only 2.1 percent of the Flextime respondents indicated a similar increase in this activity.

Hobbies. It was found that 52.2 percent of the Compressed Hours group and 48.9 percent of the Flextime respondents indicated a decline in their participation in various hobbies. However, only 19.5 percent of the Standard Hours group reported such a decline.

Reading. Similarly, 68.0 percent of the Compressed Hours group, and 54.4 percent of the Flextime respondents indicated decreased participation in reading activities. On the other hand only 15.8 percent of the Standard Hours group reported a similar decline.

(b) Services Oriented Activities

Important differences were found among two of the four items included in this category.

Community Involvement. It was found that 33.3 percent of the Compressed Hours respondents, and 27.7 percent of the Flextime respondents indicated some decrease in their level of participation in these activities, since adopting an altered workweek structure. However, the

Standard Hours group showed that only 8.3 percent of respondents perceived a decline in their participation in these activities.

Social Club Membership. The information presented in Tables 52, 53, and 54, showed that 11.5 percent of the Standard Hours group, and 25.8 percent of the Flextime group indicated a decline in their participation in this activity. However, the Compressed Hours group, on the other hand did not indicate any change in their level of participation in social club membership.

(c) Participant activities

Further examination of the information presented in Tables 52, 53 and 54, indicated that important differences were found among the groups' perceptions of changes in these leisure activities for 5 of the six items included in this categorization.

Domicile--Oriented Activities. A large percentage of respondents in all groups noted a decline in their participation in this activity. It was found that 82.8 percent of the Compressed Hours respondents indicated a decline in their participation in activities concerning work around the house. However, only 41.3 percent of the Flextime respondents indicated a similar deterioration in this activity.

Fishing and Hunting. It was found that 5.3 percent of the Standard Hours respondents and 13.8 percent of the Flextime respondents indicated a decline in their participation in this activity. However, 41.7 percent of the Compressed Hours group suggested a similar decline in their level of participation. Alternatively, 26.3 percent of the Standard Hours respondents indicated an increase in their participation in this activity, whereas none of the Compressed Hours respondents noted any similar increase.

Participation in Athletic Pursuits. It was found that 25.5 percent of the Standard Hours respondents indicated an increase in their level of participation in these activities, whereas only 2.4 percent of the Flextime respondents, and none of the Compressed Hours respondents noted any similar increase. On the other hand, 56.3 percent of the Compressed Hours respondents indicated a decline in athletic pursuits, compared to 33.7 percent of the respondents working under Flexible Hours, and 12.7 percent of the Standard Hours respondents.

Swimming, Boating. Both of the innovative groups recorded a large decline in these activities, as 38.5 percent of the Compressed Hours respondents and 26.7 percent of the Flextime respondents indicated less involvement. However, only 15.5 percent of the Standard Hours group noted a similar decline.

Moonlighting. It was found that 25 percent of the Compressed Hours group indicated that they participated less in 'moonlighting'. However only 5.9 percent of the Standard hours respondents and none of the Flextime respondents indicated any decline in their participation in part time job activities.

Motor Vehicle Maintenance. Tables 52, 53, and 54, showed that 57.1 percent of the Compressed Hours group and 33.3 percent of the Flextime group indicated a decline in their level of participation in this activity. Alternatively, only 7.7 percent of the Standard Hours group noted a similar decline.

(d) Spectator Activities

Important differences were found among only one of the 3 items included in this category.

Television Viewing. Among the two innovative groups, 15.6 percent of the Compressed Hours respondents found a decline in their participation in this activity, and 20.8 percent of the Flextime respondents noted a similar decline. However, none of the Standard Hours respondents reported a decline in the amount of time they spent watching television. On the other hand 25.5 percent of the Standard Hours respondents recorded an increase in television viewing whereas only 4.2 percent of the Compressed Hours respondents

noted a similar increase.

(e) Social Communication Activities

The data presented in Tables 52, 53, and 54, showed that important differences were found among respondents perceptions for both of these items.

Family Interaction. It was found that 50 percent of the Compressed Hours respondents and 64.5 percent of the Flextime respondents indicated a decrease in their participation time spent interacting with their family. On the other hand only 15.0 percent of the Standard Hours respondents noted a similar decline.

Non-family Kinship Interaction. Furthermore the information presented in Tables 52, 53, and 54, revealed that 30.0 percent of the Compressed Hours respondents, and 37.5 percent of the Flextime respondents indicated a decline in their time spent visiting relatives. However only 8.1 percent of the Standard Hours group registered a similar decline in this activity. Alternatively, 21.0 percent of the Standard Hours respondents recorded an increase in this activity, compared with only 1.0 percent of the Flextime respondents noting a similar increase.

(f) Other Activities.

Important differences were found among two of the

three remaining items included on this scale.

Relaxation and Recuperation. Among the two innovative groups a considerable decline in these types of activities were indicated. Among the Compressed Hours group 40.8 percent of the respondents indicated decreased participation here, and 38.2 percent of the Flextime respondents indicated a similar decline. On the other hand only 5.2 percent of the Standard Hours group indicated any decrease in participation in these activities.

Boredom and Leisure. Finally, the information presented in Tables 52, 53, and 54, showed that 34.5 percent of the Compressed Hours group, and 75.0 percent of the Flexible Hours group indicated that they tended to experience greater boredom with free time since adopting their altered workweek structures. On the other hand only 18.8 percent of the Standard Hours group noted a similar increase in their level of boredom and leisure.

Summary. A summary of the important differences concerning perceptions of changes in leisure activities is presented in Table 55. It was found that for 12 of the 16 items where important differences were found relating to decreased participation in leisure activities, the groups involved in altered workweeks indicated a greater decline in their amount of participation than the Standard Hours group. On the other hand, where important differences were found

Table 55

**Summary of Important* Differences Among Groups
Regarding Changes in Leisure Activities**

	Increased Participation	Decreased Participation
<u>Creative Activities</u>		
Travel	S > F	F > S, C > S
Hobbies		F > S, C > S
Reading		F > S, C > S
<u>Service Oriented Activities</u>		
Community Involvement		C > S
Social Club Membership		F > C
<u>Participant Activities</u>		
Domicile Oriented Activities		S > F, C > F
Fishing and Hunting	S > C	C > F, C > S
Participation in Athletic Pursuits	S > F, S > C	F > S, C > F, C > S
Swimming, Boating		C > S
Moonlighting		C > F
Automobile Maintenance		F > S, C > S, C > F
<u>Spectator Activities</u>		
Television Viewing	S > C	C > S
<u>Social Communication Activities</u>		
Family Interaction		F > S, C > S
Non Family Kinship Interaction	S > F	C > F, C > S
<u>Other Activities</u>		
Relaxation and Recuperation		F > S, C > S
Boredom and Desire	C > F, C > S	

*Important Differences defined as at least a 20 percent difference between percentage scores for at least two groups of respondents.

C = Compressed, S = Standard, F = Flexible

between at least two groups concerning increases in participation in leisure activities, in five of these six cases, the Standard Hours group indicated a more important increase in their level of participation.

Thus the Faunce hypotheses were not supported by this data, as the groups involved in altered workweeks that had experienced more flexibility in their leisure time did not indicate increased participation in creative activities. However, the innovative groups did indicate a decline in their participation in spectator activities, but did not indicate important increases in their involvement in participation activities.

ALTERATIONS IN THE WORKWEEK AND CHANGES IN COMMUTING AND PARKING ARRANGEMENTS

The importance of the impact of innovations in the management of time upon travel and parking arrangements was discussed in detail in Chapter 2. For example, the original introduction of Flextime that occurred in West Germany in the 1960's was designed to contribute to the resolution of commuting and traffic problems. Furthermore, Tandan's (1974) indifference curve analysis emphasized the importance of the savings in commuting time arising from the adoption of a Compressed Workweek time structure. This phase of the analysis focused upon the impact that the adoption of innovative workweek structures has had upon commuting and

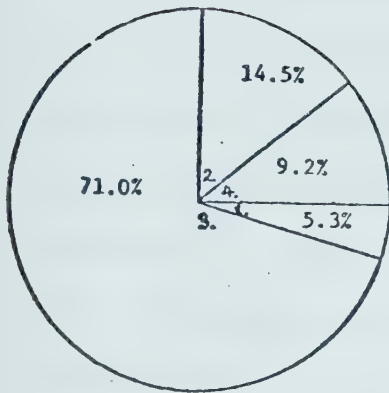
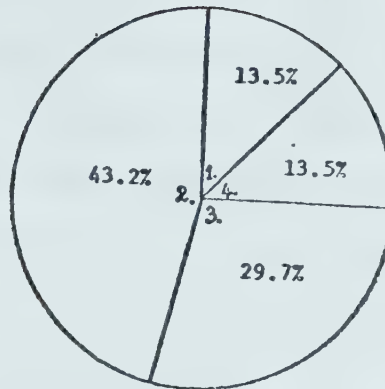
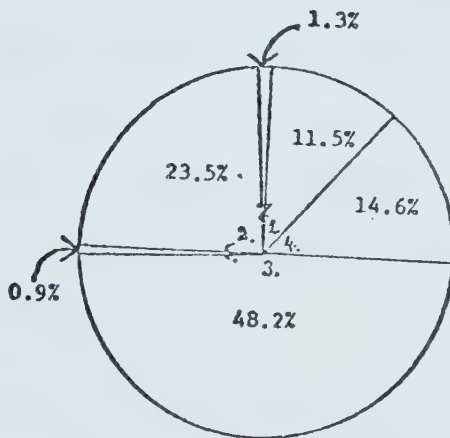
parking arrangements.

Comparison of Modes of Commuting

The information presented in Figure 10 showed a comparison among those three groups concerning their usual mode of travel to and from work. First, it was interesting to note that in the two innovative groups the percentage of employees who walked to work was twice as high as in the Standard hour group; i.e., Flextime 11.5%; Compressed Hours 13.5%; and Standard Hours 5.3%.

Perhaps the most important finding of this section of the study concerned the differences among the groups' utilization of public transit services to travel to and from work. It was found that both of the groups involved in altered workweeks made far greater use of bus facilities to commute than the Standard Hours group, especially the respondents involved in the Compressed Workweek branch. Figure 11 showed that the comparative percentage relating to use of the bus service for commuting were: Flextime 23.5%; Compressed Hours 43.2%; and Standard Hours 14.5%.

Further examination of Figure 10 also revealed considerable differences among the use of a car, either as a driver or a passenger, to commute to and from work. In the Standard Hours group 80.2 percent of respondents used a car for commuting purposes whereas in the innovative groups the

Standard HoursCompressed HoursFlexible Hours

1. Walk
2. Bus
3. Car (Driver)
4. Car (Passenger)
5. Bicycle or Motorcycle
6. Taxi
7. Other

Figure 10

**Percentage Distribution Outlining Usual Mode of Travel
To and From Work for All Groups of Respondents**

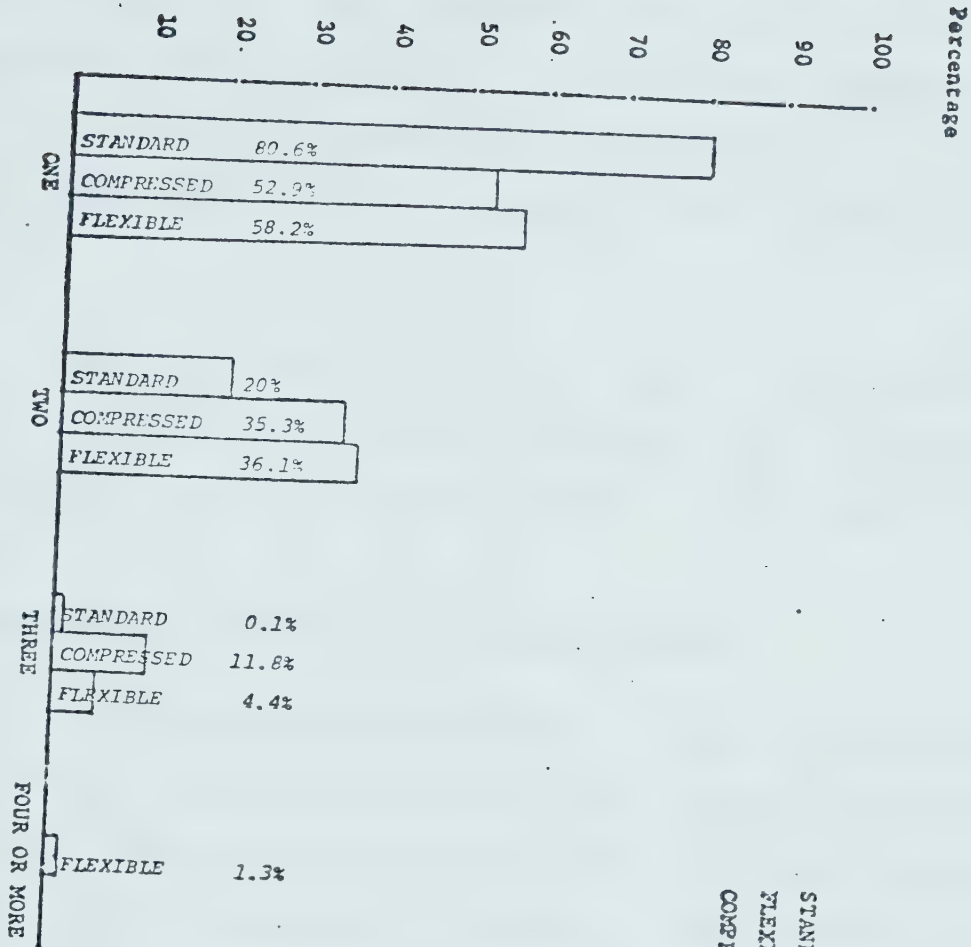
comparative figure was far smaller: Flextime 62.8%; and Compressed Hours 43.2%.⁴

Characteristics of Members of Commuting Groups

An issue closely related to the mode of transport used for commuting concerns the number of persons included in commuting groups. For example in Vancouver in 1976 computerized car pools were being attempted. The information presented in Figure 11 showed that the two innovative groups made significantly greater use of car pools than did the Standard Hours groups. It was found that 80.6 per cent of the Standard Hours group commuted alone in their car to and from work, whereas only 52.9 percent of the Compressed Hours respondents, and 58.2 percent of the Flextime respondents commuted alone. Furthermore, Figure 11 showed that the two innovative groups had a greater percentage of respondents than the Standard hours group commuting in car pools of various sizes.

First, the Standard Hours group had only 20 percent of respondents commuting in a car pool of two people, whereas 35.9 percent of the Compressed Hours respondents and

⁴Currently the Edmonton public transit system has been receiving considerable criticism and a number of important changes are planned for the future, such as the underground railway and improvements in bus services. Thus in the near future even greater changes may be expected to occur in modes of commuting to these various branches.



STANDARD N = 108
 FLEXIBLE N = 158
 COMPRESSED N = 17

Figure 11

Percentage Distribution Outlining the Number of Members
 in Carpools for All Groups of Respondents

36.1 percent of the Flextime respondents commuted in car pools of this size.

Secondly, concerning car pools involving three people, 11.8% of the Flextime group and 4.4% of the Compressed Hours respondents indicated they commuted in car pools of this size. However only 0.1 percent of the Standard Hours group indicated they commuted in car pools of this size.

Thirdly, the only group to commute in a car pool of 4 or more persons was the Flextime group and 1.3 percent of respondents indicated they commuted in car pools of this size.

Relationship to Members of Commuting Group

Furthermore the information in Table 56 showed that the Flextime respondents were more likely to travel in commuting groups with members from outside their immediate family (27.9 percent,) whereas the Standard Hours respondents indicated that few of the members of their commuting groups were from outside of their immediate family, (10 percent).

Comparative Costs Incurred by Car Commuters

Apart from the operational costs of running a motor vehicle, the costs associated with the provision of parking facilities represent an important item in the car-commuters

Table 56

Frequency and Percentage Distribution Outlining
the Relationship Among Members of Commuting Groups.

	Standard		Compressed		Flexible	
	Hours		Hours		Hours	
	N=20		N=7		N=68	
	f	%	f	%	f	%
1. Members of Your Family	18	90	6	85.7	46	67.6
2. Others	2	10	1	14.3	19	27.9
3. Both of above	-	-				4.4

budget. The information presented in Table 57 indicated that at least 80 percent of car commuters parked their car in a lot or a garage, for all groups.

Table 57

Frequency and Percentage Distribution for
Respondents Outlining the Location of Car Park Facilities.

	Standard		Compressed		Flexible	
	Hours		Hours		Hours	
	N=96		N=9		N=120	
	f	%	f	%	f	%
1. In a Lot or Garage.	90	93.8	9	100	99	82.5
2. On the Street	6	6.2	-	-	21	17.5

However, an examination of the data presented in Table 58 indicated that there was not a great amount of difference among the groups concerning parking costs.

Frequency and Percentage Distribution for the Comparison
of Parking Costs per Month

	Standard Hours N=75		Compressed Hours N=60		Flexible Hours N=70	
	f	%	f	%	f	%
1. Free	-	-	-	-	-	-
2. Dollars per month						
1-5	72	94.7	10	100	57	80.4
6-10	2	2.6	-	-	8	11.4
11-15	1	2.6	-	-	3	4.3
> 15			-	-	2	2.8

In all groups at least 80 percent of the respondents incurred parking costs between 1-5 dollars per month. However, some of the Flextime respondents indicated that they were prepared to pay more than five dollars per month for parking, as 18.5 percent of the Flextime respondents indicated that their parking costs exceeded \$5.00 per month.

Furthermore the information contained in Table 59 showed that 40.4 percent of the Flextime respondents were using parking space provided by the provincial government, whereas only 14.6 of the Standard Hours respondents utilized provincial government parking facilities.

Summary. In the foregoing analysis it was found that both of the groups associated with innovations in the

Frequency and Percentage Distribution for the
Provision of Parking Space

	Standard Hours N=82		Compressed Hours N=9		Flexible Hours N=109	
	f	%	f	%	f	%
1. Provincial Government	12	14.6	-	-	44	40.4
2. Other	20	85.4	9	100	65	59.6

management of time made greater utilization of the public transit system. Furthermore, the two groups involved in altered workweeks made greater use of car pools than did the Standard Hours groups. Also the groups involved in rearranged workweeks tended to draw more members for their car pools from outside of their immediate family than the Standard Hours group. Finally, there was little difference among the parking costs among all groups of car commuters, but the Flextime group tended to make greater use of government parking facilities.

CHAPTER SUMMARY

This was the second of two chapters that focused upon inter-group comparisons of factors relating to organizational operations and alterations in the structuring of the workweek. Specifically, this chapter examined perceptions relating to three important factors associated

with the organizational and social environment of respondents: (1) changes in family interaction and personal relationships, (2) changes in leisure activities and (3) changes in commuting and parking arrangements. The following two chapters will examine intra-group comparisons of perceptions related to organizational operations, and associated cost data.

CHAPTER 6

RESEARCH FINDINGS: INTFA-GROUP ANALYSIS OF ALTERATIONS IN THE WORKWEEK AND ORGANIZATIONAL CHANGE

This is the first of two chapters that deal primarily with intra-group comparisons between management and non-management personnel of the effects of alterations in the structuring of the workweek upon organizational operations. The first section of this chapter examines the significant differences reported within each time structure concerning the mean perceptions related to job satisfaction and organizational performance. The second section of this chapter deals with correlations. Correlation coefficients are examined for variables included in the personal data sheets, and the mean perceptions related to job satisfaction, organizational performance, family interaction and personal relationships.

DIFFERENCES BETWEEN MANAGEMENT AND NON-MANAGEMENT PERCEPTICNS OF JOB SATISFACTION

Comparison of Management and Non Management Perceptions of Job Satisfaction for the Standard Hours Group

The information presented in Table 60 showed significant differences between the mean scores for management and non- management personnel for the variables related to job satisfaction. It was found that significant differences were obtained for 6 of the 10 variables at the

Table 60

Significant Differences Between Management and Non Management
Perceptions of Job Satisfaction -- Standard Hours Group

Job Satisfaction	Management Mean N = 57	Non Management Mean N = 72	t	Probability
Factor A. Schedule Monitoring				
1. The over-all program in your department	1.89	2.30	-2.47	0.02 ^a
2. The way in which the program is organized	1.91	2.42	-3.11	0.00 ^b
3. The method of keep- ing track of the hours worked each day	1.95	2.19	-1.43	0.15
Factor B. Individual Autonomy				
4. The freedom you have to decide when you will arrive and depart from work	1.96	3.65	-8.32	0.00 ^b
5. The way your imme- diate supervisor is administering the pro- gram	1.63	2.54	-5.67*	0.00 ^b
6. The arrangements you have for travel to and from work	1.79	2.39	-3.17*	0.00 ^b
7. Freedom to handle personal business during the workday	2.58	3.42	-4.14	0.00 ^b
C. Additional Variables				
8. Your utilization of the service provided by the bus system	2.87	3.05	-0.97	0.34
9. Changes which have occurred in the way work is done	2.35	2.54	-1.24	0.22
10. The way you now organize and complete your work	1.95	2.07	-0.88	0.38

Lowest Mean = Most Satisfactory

* Welch t prime adjustment of t-tests of unequal variances.

^a Significant at .05 level.

^b Significant at .01 level.

.05 probability level. These variables included: (1) The overall program in your department; (2) The way the program is organized; (4) The freedom you have to decide when you will arrive and depart from work; (5) The way your immediate supervisor is administering the program; (6) The arrangements you have to travel to and from work; and (7) Freedom to handle personal business during the workday.

It is important to note that in all of these cases the management mean was lower than the non-management mean, indicating that the former group was more satisfied with changes that have occurred in these aspects of job satisfaction in their respective branches over the last 12 months.

Discrepancy Analysis for Standard Hours
Management and Non-Management Mean
Scores for Job Satisfaction

The term discrepancy refers to the absolute value of the difference between the obtained management and non-management mean scores for items relating to job satisfaction. An examination of Figure 12 shows that in every case the management mean was lower than the non-management mean for these measures of job satisfaction.

Furthermore an examination of Table 61 revealed that in descending order, the following three job satisfaction items contained the highest discrepancies concerning perceptions of change between management and non-management

Job Satisfaction

- 1. The over-all program in your department
- 2. The way in which the program is organized
- 3. The method of keeping track of the hours worked each day
- 4. The freedom you have to decide when you will arrive and depart from work
- 5. The way your immediate supervisor is administering the program
- 6. The arrangements you have for travel to and from work
- 7. Your utilization of the service provided by the bus system
- 8. Changes which have occurred in the way work is done
- 9. The way you now organize and complete your work
- 10. Freedom to handle personal business during the workday

..... Non Management Mean
——— Management Mean

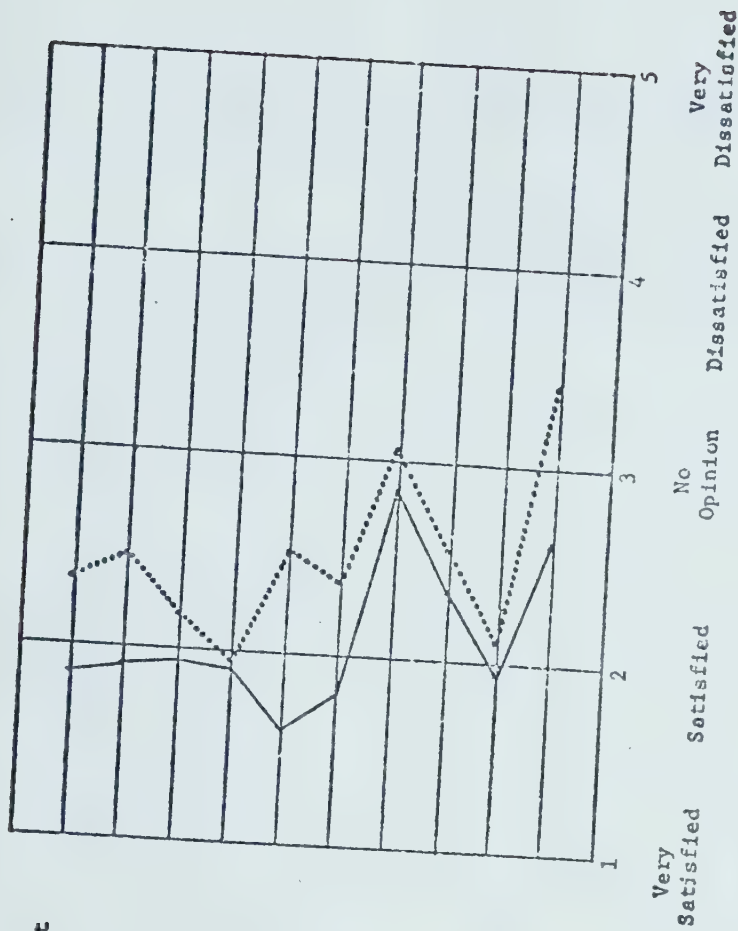


Figure 12

Profile of Standard Hours Management and Non Management Mean Scores for Job Satisfaction

Table 61

Discrepancy Analysis of Management and Non Management Perceptions
of Job Satisfaction -- Standard Hours Group

Job Satisfaction	Management Mean N = 57	Non Management Mean N = 72	Discre- pancy	Discre- pancy Rank
Factor A. Schedule Monitoring				
1. The over-all program in your department	1.89	2.30	.41	6
2. The way in which the program is organized	1.91	2.42	.51	5
3. The method of keeping track of the hours worked each day	1.95	2.19	.24	7
Factor B. Individual Autonomy				
4. The freedom you have to decide when you will arrive and depart from work	1.96	3.65	1.69	1
5. The way your immediate supervisor is administering the program	1.63	2.54	.91	2
6. The arrangements you have for travel to and from work	1.79	2.39	.60	4
7. Freedom to handle personal business during the workday	2.58	3.42	.84	3
C. Additional Variables				
8. Your utilization of the service provided by the bus system	2.87	3.05	.18	9
9. Changes which have occurred in the way work is done	2.35	2.54	.19	8
10. The way you now organize and complete your work	1.95	2.07	.12	10

* Discrepancy Rank = |Management Mean - Non Management Mean|

groups: (4) The freedom you have to decide when you will arrive and depart from work; (5) The way your immediate supervisor is administering the program; and (7) Freedom to handle personal business during the workday.

On the other hand, in descending order, the Standard Hours management and non-management group means that contained the three smallest discrepancies were: (10) The way you now complete and organize your work; (8) Your utilization of the service provided by the bus system; and (9) Changes which have occurred in the way work is done.

Comparison of Management and Non-Management
Perceptions of Job Satisfaction for the Compressed
Hours Group

The information presented in Table 62 showed significant differences between the mean scores for Compressed Hours management and non-management personnel for the variables related to changes in the level of job satisfaction. Only two variables were found to be significantly different at the .05 probability level. These were: (2) The way in which the program is organized; and (5) The way your immediate supervisor is administering the program. In both cases the non-management mean was lower than the management mean indicating that the former group was more satisfied with changes that have occurred in the level of job satisfaction concerning these variables since the introduction of the Compressed Workweek system of time allocation.

Table 62

Significant Differences Between Management and Non Management
Perceptions of Job Satisfaction -- Compressed Hours Group

Job Satisfaction	Management Mean N = 6	Non Management Mean N = 31	t	Probability
Factor A. Schedule Monitoring				
1. The over-all program in your department	1.60	1.48	0.42*	0.69
2. The way in which the program is organized	2.20	1.52	2.17	0.04 ^a
3. The method of keeping track of the hours worked each day	1.50	1.50	0.00*	1.00
Factor B. Individual Autonomy				
4. The freedom you have to decide when you will arrive and depart from work	2.20	1.92	0.64	0.53
5. The way your immediate supervisor is administering the program	2.20	1.47	2.31	0.03 ^a
6. The arrangements you have for travel to and from work	1.50	1.39	0.50	0.62
7. Freedom to handle personal business during the workday	2.40	1.65	1.93	0.06 ^c
C. Additional Variables				
8. Your utilization of the service provided by the bus system	2.80	2.26	1.01	0.32
9. Changes which have occurred in the way work is done	1.80	1.60	0.69	0.50
10. The way you now organize and complete your work	1.80	1.52	1.18	0.25

Lowest Mean = Most Satisfactory

* Welch t prime adjustment of t-tests of unequal variances.

^a Significant at .05 level.

^b Significant at .01 level.

^c Significant at .10 level.

Discrepancy Analysis for Compressed Hours
Management and Non-Management Mean Scores for Job
Satisfaction

Figure 13 presented a profile of the Compressed Hours management and non-management mean scores concerning perceptions of changes related to job satisfaction associated with alterations in the structure of the workweek. In all cases the management mean was higher than the non-management mean, indicating greater job satisfaction among the latter group. Table 63 shows that in descending order, the highest discrepancies were obtained among the following three items: (7) Freedom to handle personal business during the workday; (5) The way your immediate supervisor is administering the program; and (2) The way in which the program is organized.

In contrast to the above findings the three items containing the smallest discrepancies, indicating greatest consensus among management and non-management perceptions of job satisfaction included the following: (3) The method of keeping track of hours each day; (6) The arrangements you have to travel to and from work; and (1) The overall program in your department.

Comparison of Management and Non-Management
Perceptions of Job Satisfaction for the Flexible
Hours Group

The information presented in Table 64 presented significant differences between the mean scores for non-

Job Satisfaction

1. The over-all program in your department
2. The way in which the program is organized
3. The method of keeping track of the hours worked each day
4. The freedom you have to decide when you will arrive and depart from work
5. The way your immediate supervisor is administering the program
6. The arrangements you have for travel to and from work
7. Your utilization of the service provided by the bus system
8. Changes which have occurred in the way work is done
9. The way you now organize and complete your work
10. Freedom to handle personal business during the workday

..... Non Management Mean
 _____ Management Mean

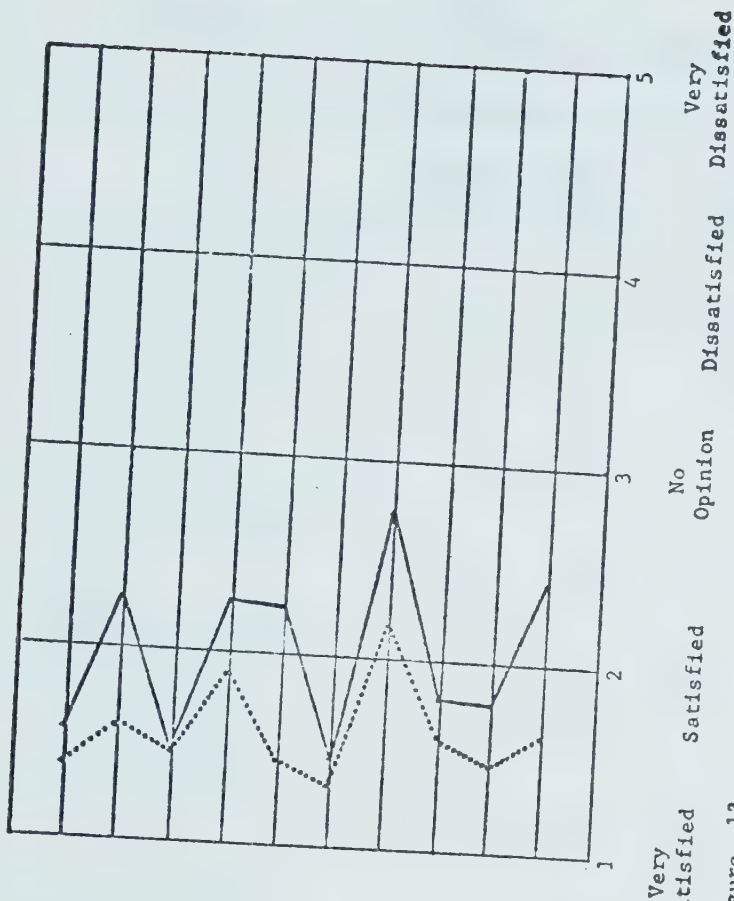


Figure 13

Profile of Compressed Hours Management and Non Management
 Mean Scores for Job Satisfaction

Table 63

Discrepancy Analysis of Management and Non Management Perceptions
of Job Satisfaction -- Compressed Hours Group

Job Satisfaction	Management Mean N = 6	Non Management Mean N = 31	Discre- pancy	Discre- pancy Rank
Factor A. Schedule Monitoring				
1. The over-all program in your department	1.60	1.48	.12	8
2. The way in which the program is organized	2.20	1.52	.68	3
3. The method of keep- ing track of the hours worked each day	1.50	1.50	.00	10
Factor B. Individual Autonomy				
4. The freedom you have to decide when you will arrive and depart from work	2.20	1.92	.28	5
5. The way your imme- diate supervisor is administering the pro- gram	2.20	1.47	.73	2
6. The arrangements you have for travel to and from work	1.50	1.39	.11	9
7. Freedom to handle personal business during the workday	2.40	1.65	.75	1
C. Additional Variables				
8. Your utilization of the service provided by the bus system	2.80	2.26	.54	4
9. Changes which have occurred in the way work is done	1.80	1.60	.20	7
10. The way you now organize and complete your work	1.80	1.52	.28	5

* Discrepancy Rank = |Management Mean - Non Management Mean|

Table 64

Significant Differences Between Management and Non Management
Perceptions of Job Satisfaction -- Flexible Hours Group

Job Satisfaction	Management Mean N = 35	Non Management Mean N = 188	t	Probability
Factor A. Schedule Monitoring				
1. The over-all program in your department	1.85	1.63	1.76*	0.09
2. The way in which the program is organized	1.91	1.83	0.57	0.57
3. The method of keeping track of the hours worked each day	2.09	1.68	2.93	0.01 ^b
Factor B. Individual Autonomy				
4. The freedom you have to decide when you will arrive and depart from work	1.56	1.62	-0.37	0.72
5. The way your immediate supervisor is administering the program	1.85	1.71	0.84	0.40
6. The arrangements you have for travel to and from work	1.68	1.59	0.67	0.51
7. Freedom to handle personal business during the workday	1.74	1.67	0.47	0.64
C. Additional Variables				
8. Your utilization of the service provided by the bus system	2.90	2.50	2.06	0.04 ^a
9. Changes which have occurred in the way work is done	2.27	2.05	1.43	0.15
10. The way you now organize and complete your work	1.83	1.69	1.13*	0.27

Lowest Mean = Most Satisfactory

* Welch t prime adjustment of t-tests of unequal variances.

^a Significant at .05 level.

^b Significant at .01 level.

management and management personnel concerning their perceptions of changes in items relating to job satisfaction. It was found that significant differences were obtained among only two pairs of means at the .05 probability level. These were: (3) The method of keeping track of the hours worked each day; and (8) Your utilization of the service provided by the bus system. In both cases the non-management mean was lower than the management mean indicating that the former group was more satisfied with changes that have occurred in these items since these branches adopted a flexible hours system of time allocation.

Discrepancy Analysis For Flexible Hours
Management and Non-Management Mean Scores for
Job Satisfaction

An examination of Figure 14 showed that for nine of the 10 items for which job satisfaction scores were obtained the management mean was higher than the non-management mean, indicating the latter group tended to be more satisfied with changes relating to their job since the introduction of Flextime into their branches. Table 65 shows that in descending order, the largest discrepancies were contained for the following 3 items, indicating the greatest dissensus among management and non-management groups. These items included: (3) The method of keeping track of hours worked each day; (2) Your utilization of the service provided by the bus system; and (9) Changes which have occurred in the way work is done.

Job Satisfaction

1. The over-all program in your department
2. The way in which the program is organized
3. The method of keeping track of the hours worked each day
4. The freedom you have to decide when you will arrive and depart from work
5. The way your immediate supervisor is administering the program
6. The arrangements you have for travel to and from work
7. Your utilization of the service provided by the bus system
8. Changes which have occurred in the way work is done
9. The way you now organize and complete your work
10. Freedom to handle personal business during the workday

..... Non Management Mean
 _____ Management Mean

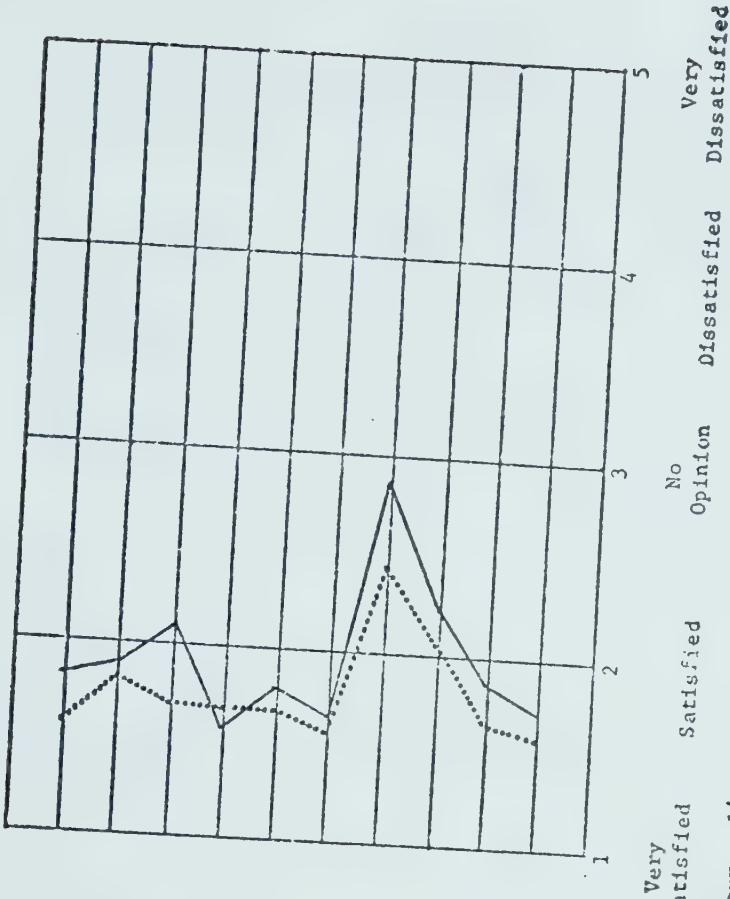


Figure 14

Profile of Flextime Management and Non Management Mean Scores for Job Satisfaction

Table 65

Discrepancy Analysis of Management and Non Management Perceptions
of Job Satisfaction -- Flexible Hours Group

Job Satisfaction	Management Mean N = 35	Non Management Mean N = 188	Discre- pancy	Discre- pancy Rank
Factor A. Schedule Monitoring				
1. The over-all program in your department	1.85	1.63	.22	3
2. The way in which the program is organized	1.91	1.83	.08	8
3. The method of keep- ing track of the hours worked each day	2.09	1.68	.41	1
Factor B. Individual Autonomy				
4. The freedom you have to decide when you will arrive and depart from work	1.56	1.62	.06	10
5. The way your imme- diate supervisor is administering the pro- gram	1.85	1.71	.14	6
6. The arrangements you have for travel to and from work	1.68	1.59	.09	7
7. Freedom to handle personal business during the workday	1.74	1.67	.07	9
C. Additional Variables				
8. Your utilization of the service provided by the bus system	2.90	2.50	.40	2
9. Changes which have occurred in the way work is done	2.27	2.05	.22	3
10. The way you now organize and complete your work	1.85	1.69	.16	5

* Discrepancy Rank = |Management Mean - Non Management Mean|

Alternatively, the following three items contained the smallest discrepancies indicating the greatest consensus among management and non-managements groups. These were: (4) The freedom you have to decide when you will arrive and depart from work; (7) Freedom to handle personal business during the workday; and (2) The way in which the program is organized.

INTER GROUP COMPARISON OF DISCREPANCY RANKINGS FOR JOB SATISFACTION

Table 66 presents a comparison of the discrepancy rankings of the 10 job satisfaction items for each of the three groups of respondents.

Job Satisfaction and Highest Discrepancies

An examination of Table 66 revealed that there was fairly low agreement among the three groups concerning the job satisfaction items that incorporate the highest discrepancies. No one item was included among the three highest discrepancies for all three groups of respondents. However two items were included among the three highest discrepancies for the Compressed and Standard Hours groups. These were: (7) Freedom to handle personal business during the workday; and (5) The way your immediate supervisor is handling the program. In both cases the non-management mean was lower than the management mean, indicating the former group was more satisfied with these changes.

Table 66

Summary of Intra-Group Discrepancy Ranking for Job Satisfaction

Group	Three Highest Discrepancies	Three Lowest Discrepancies
Standard Hours - Variables	4, 5, 7	10, 8, 9
Compressed Hours - Variables	7, 5, 2	3, 6, 2
Flexible Hours - Variables	3, 2, 9	4, 7, 2

Job Satisfaction and Lowest Discrepancies

Further examination of Table 66 showed that there was considerable dissensus among the three groups concerning the items that contained the lowest discrepancies. Only one variable, (2) The way in which the program is organized, was included by the two groups involved in altered workweeks. In both cases the non-management group was more satisfied with program organization in their branches.

DIFFERENCES BETWEEN MANAGEMENT AND NON-MANAGEMENT PERCEPTIONS FOR FAMILY INTERACTION AND PERSONAL RELATIONSHIPS

Comparison of Management and Non-Management Perceptions of Family Interaction and Personal Relationships for the Standard Hours Group

Direction of Change. An examination of the information presented in Table 67 showed that significant differences were found between two pairs of mean scores at the .05 level of probability. These were: (2) Amount of time spent with family, and (3) Amount of time spent with friends. In both cases the management mean was higher than the non-management mean indicating that the former group perceived greater deterioration in changes relating to these items.

Importance of Change. Further examination of Table 67 disclosed that no significant differences were found among pairs of mean scores for these items at the .05 level of probability.

Table 67

Significant Differences Between Management and Non-Management Perceptions
of Family Interaction and Personal Relationships -- Standard Hours Group

	Dir. tion of Change				Importance of Change			
	Management Mean N= 57	Non Management Mean N= 72	t	Probability	Management Mean N= 57	Non Management Mean N= 72	t	Probability
1. Management of your family affairs	2.09	1.98	1.45	0.15	1.91	1.85	0.76	0.45
2. Amount of time spent with family	2.23	2.05	2.10	0.04 ^a	1.84	1.87	-0.33	0.74
3. Amount of time spent with friends	2.19	2.05	1.97 ^a	0.05 ^a	1.95	1.89	0.73 ^a	0.46
4. Time available to organize your personal business affairs	2.19	2.16	0.39	0.70	1.98	1.96	0.21	0.83

* Welch t prime adjustment of t tests of unequal variance.

^a Significant at .05 level.

Comparison of Management and Non-Management
Perceptions of Family Interaction and Personal
Relationships for the Compressed Hours Group

Direction of Change. The information presented in Table 68 showed that the .05 level of probability, no significant differences were obtained between the pairs of means for these items.

Importance of Change. Further examination of Table 68 showed that only one pair of mean scores was significantly different at the .05 probability level. The management mean, 2.50 was significantly higher than the non-management mean of 1.82 at the 0.03 probability level for variable (3) Amount of time spent with friends. Thus the management group indicated that any change in the amount of time spent with their friends, was less important than it was for the non-management group.

Comparison of Management and Non-Management
Perceptions of Family Interaction and Personal
Relationships for the Flexible Hours Group

Direction of Changes. Table 69 showed that at the .05 probability level significant differences were found between pairs of means for all four items. These were: (1) Management of your family affairs, (2) Amount of time spent with family, (3) Amount of time spent with friends, and (4) Time available to organize your personal business affairs. In all cases the management mean exceeded the non-management mean indicating that the latter group perceived greater

Table 68.

Significant Differences Between Management and Non-Management Perceptions
of Family Interaction and Personal Relationships -- Compressed Houza Group

	Direction of Change				Importance of Change			
	Management Mean N= 6	Non Management Mean N= 31	t	Probability	Management Mean N= 6	Non Management Mean N= 31	t	Probability
1. Management of your family affairs	1.33	1.48	-0.66	0.51	1.33	1.59	-0.92	0.36
2. Amount of time spent with family	1.50	1.41	0.34	0.74	1.83	1.57	0.89	0.38
3. Amount of time spent with friends	1.50	1.52	-0.07	0.94	2.50	1.82	2.31	0.03 ^a
4. Time available to organize your personal business affairs	1.50	1.23	1.10	0.28	1.50	1.37	0.43	0.67

^a Significant at .05 level.

Table 69
Significant Differences Between Management and Non-Management Perceptions
of Family Interaction and Personal Relationships -- Flexible Hours Group

Family Interaction and Personal Relationships	Direction of Change				Importance of Change			
	Management Mean N=35	Non Management Mean N=188	t	Probability	Management Mean N=35	Non Management Mean N=188	t	Probability
1. Management of your family affairs	1.76	1.39	4.01	0.00 ^b	1.74	1.61	1.74 ^a	0.09 ^c
2. Amount of time spent with family	1.82	1.51	3.17	0.00 ^b	1.79	1.70	0.74	0.46
3. Amount of time spent with friends	1.94	1.73	2.21	0.03 ^a	1.94	1.91	0.25	0.80
4. Time available to organize your personal business affairs	1.74	1.30	4.61	0.00 ^b	1.91	1.54	2.82	0.01 ^b

* Welch t prime adjustment of t tests of unequal variances.

^a Significant at .05 level.

^b Significant at .01 level.

^c Significant at .10 level.

improvement in family interaction and personal relationships since the introduction of Flextime.

Importance of Change. Additional examination of Table 69 showed that only one pair of mean scores was significantly different at the .05 probability level. The management mean 1.91 was significantly higher than the non-management mean of 1.54 at the .01 probability level for variable (4) Time available to organize your personal business affairs. Thus the non-management group perceived changes in this item to be more important than the management group. However, it was found that the management mean, 1.76 was significantly higher than the non-management mean of 1.39 at the .09 probability level for variable (1) Management of your family affairs. Thus the non-management group also perceived changes in this variable to be more important than the management group.

DIFFERENCES BETWEEN MANAGEMENT AND NON-MANAGEMENT PERCEPTIONS OF ORGANIZATIONAL PERFORMANCE

Comparison of Management and Non-Management Perceptions of Organizational Performance for the Standard Hours Group.

The information presented in Table 70 shows data outlining the significant differences between the mean scores for management and non-management personnel for the variables related to organizational performance.

Direction of Change. Table 70 shows that significant

Table 70

Significant Differences Between Management and Non-Management Perceptions
of Organizational Performance -- Standard Hours Group

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N=57	Non Management Mean N=72	t	Probability	Management Mean N=57	Non Management Mean N=72	t	Probability
Factor A. Organizational Communication								
1. Availability of people with whom you must work	1.91	2.08	-2.07	0.04 ^a	2.00	1.92	1.66	0.10
2. Degree of participation in decisions about work assignments	1.98	1.89	1.07*	0.29	1.98	1.92	0.83*	0.41
3. Degree of difficulty in scheduling work requiring others	2.11	2.08	0.33*	0.74	2.04	2.05	-0.23*	0.82
4. Quality of communication about work assignments	1.96	1.98	-0.25	0.80	1.95	1.92	0.40	0.69
5. Ability to arrange meetings with others when necessary	2.05	2.08	-0.33	0.74	2.07	2.09	-0.20	0.85
6. Availability of others for 'spur of the moment' discussions or phone calls	2.05	2.06	-0.12	0.45	2.05	2.02	0.45	0.65
Factor B. Work Scheduling								
7. Organization of your work	1.91	1.86	0.64	0.52	2.02	1.95	0.80	0.42

Table 70 cont'd.

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N= 57	Non Management Mean N= 72	t	Probability	Management Mean N= 57	Non Management Mean N= 72	t	Probability
B. Availability of office equipment	1.93	1.95	-0.34	0.73	2.05	1.95	1.74	0.09
9. Desirability of respondent's Department as a place to work	2.07	2.03	0.47*	0.41	1.96	1.82	1.79*	0.08 ^c
10. Degree of fatigue associated with your daily work assignments	2.11 2.05	2.05 2.09	0.82 -0.62*	0.41 0.54	1.96 2.00	1.97 1.92	-0.03 1.66*	0.97 0.10 ^c
11. Travel to and from work								
Factor C. Service to the Public								
12. The service your department provides to other departments	1.81	1.89	-1.21	0.23	1.96	2.00	-0.50*	0.62
13. The service your department provides to the public	1.75	1.94	-2.35	0.02 ^a	1.89	2.00	-1.41	0.16
D. Other Variables								
14. Your over-all work performance	1.81	1.80	0.12*	0.91	2.02	1.90	1.34*	0.18
15. The availability of services such as dining rooms, elevators and cafeterias	2.04	2.06	-0.42	0.68	1.98	2.02	-0.63	0.53

* Welch t prime adjustment of t-tests of unequal variances.

* Welch t prime adjustment of t-tests of unequal variances.

a Significant at .05 level.

b Significant at .01 level.

c Significant at .10 level.

differences were found among only two of the 15 items at the .05 probability level. These variables included: (5) Availability of people with whom you must work; and (14) The service your department provides to the public. In both cases the non-management mean was higher than the management mean, indicating that the latter group perceived greater improvement in these items.

Importance of Change. Table 70 shows that no significant differences were found among these 15 items relating to organizational performance at the .05 level of probability. However, a number of significant differences were obtained at the .10 level of probability. The non-management mean, 1.92 was significantly lower than the management mean of 2.00 at the 0.10 level of probability for variable (1) The availability of people with whom you must work. Similarly, for variable (8) Availability of office equipment, the non-management mean 1.95 was significantly lower than the management mean of 2.05 at the 0.09 level of probability. In addition for variable (9) Desirability of respondent's department as a place to work, it was found that the non-management mean 1.82 was significantly lower than the management mean of 1.96 at the 0.08 level of probability. Also for variable (11) Travel to and from work the non-management mean 1.92 was significantly lower than the management mean of 2.00 at the 0.10 probability level. Thus in all of these cases, the non-management group perceived any given change to be more important than

management personnel. Alternatively, for variable (10) Degree of fatigue associated with your daily work assignments, it was found that the non-management mean 1.97 was significantly higher than the management mean of 1.96. Thus, for this variable the management group attributed more importance to any given change.

Discrepancy Analysis for Standard Hours Management and Non-Management Mean Scores for Organizational Performance.

Direction of Change. Figure 15 presents a profile of the Standard hours management and non-management mean scores concerning perceptions of the direction of changes in organizational performance. It was found that for 9 of the 15 items the non-management mean was higher than the management mean, indicating that the former group perceived the direction of change to be less acceptable.

Table 71 shows that in descending order, the three highest discrepancies were obtained for the following items: (13) The service your department provides to the public; (1) Availability of people with whom you must work; and (2) Degree of participation in decisions about work assignments. Alternatively, in descending order the greatest consensus was indicated among the following three items as they contained the lowest discrepancies: (14) Your overall work performance; (6) Availability of others for 'spur of the moment' discussions or phone calls; and (15) The availability of services such as dining rooms, elevators and

Organizational Performance

- 1. Travel to and from work
- 2. Organization of your work
- 3. Availability of office equipment
- 4. Your over-all work performance
- 5. Availability of people with whom you must work
- 6. Degree of participation in decisions about work assignments
- 7. Degree of difficulty in scheduling work requiring others
- 8. Quality of communication about work assignments
- 9. Ability to arrange meetings with others when necessary
- 10. Availability to other for 'spur of the moment' discussions or phone calls
- 11. Desirability of respondent's Department as a place to work
- 12. Degree of fatigue associated with your daily work assignments
- 13. The service your department provides to other departments
- 14. The service your department provides to the public
- 15. The availability of services such as dining rooms, elevators and cafeterias

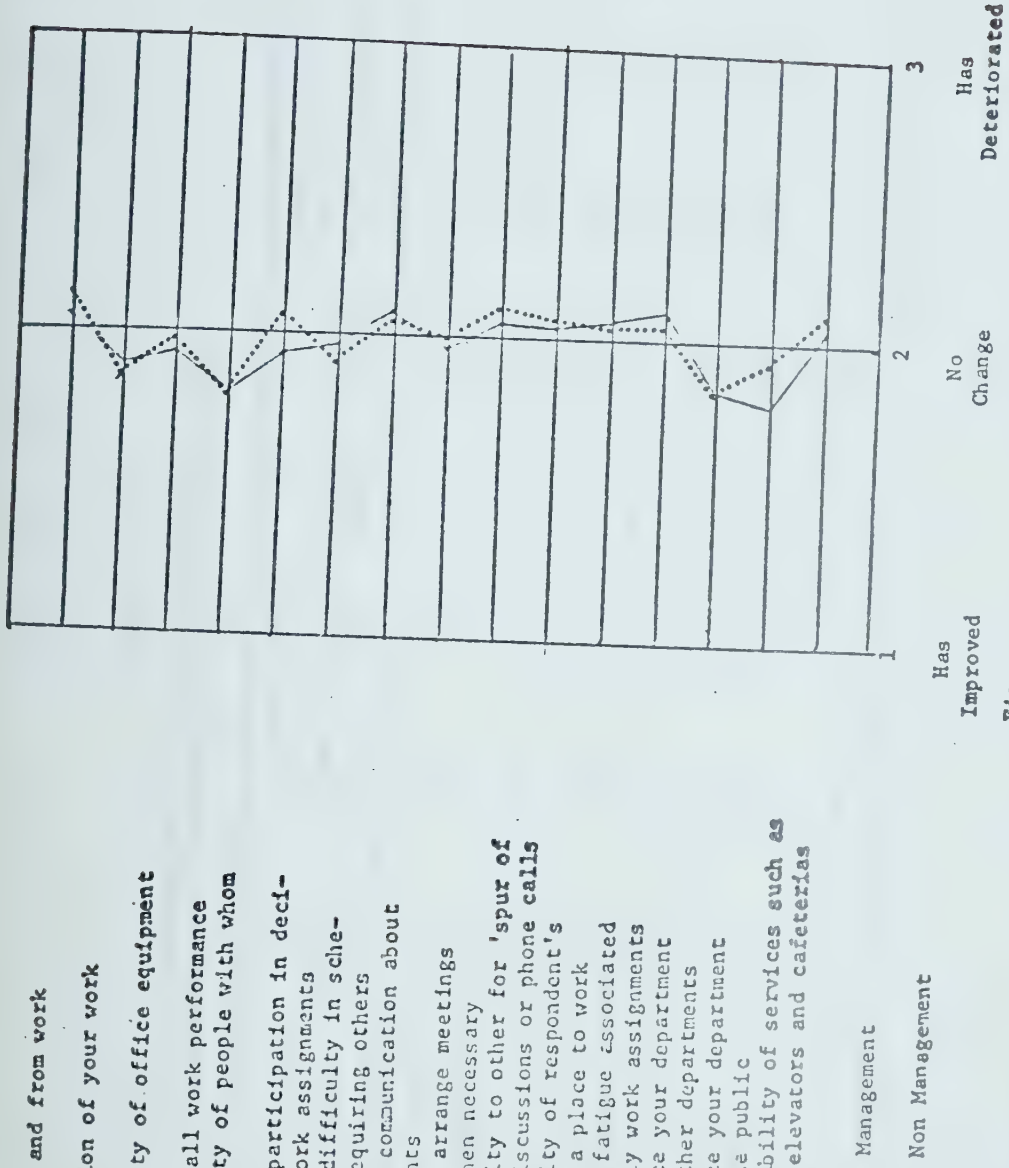


Figure 15
Profile of Standard Hours Management and Non Management Mean Scores Relating To the Direction of Changes in Organizational Performance

Table 71

Discrepancy Analysis of Management and Non Management Perceptions
of Organizational Performance -- Standard Hours Group

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N= 57	Non Management Mean N= 72	Discrepancy Rank	Discrepancy Rank	Management Mean N= 57	Non Management Mean N= 72	Discrepancy Rank	Discrepancy Rank
Factor A. Organizational Communication								
1. Availability of people with whom you must work	1.91	2.08	.17	2	2.00	1.92	.08	5
2. Degree of participation in decisions about work assignments	1.98	1.89	.09	3	1.98	1.92	.06	7
3. Degree of difficulty in scheduling work requiring others	2.11	2.08	.03	9	2.04	2.03	.01	13
4. Quality of communication about work assignments	1.96	1.98	.02	11	1.95	1.92	.03	10
5. Ability to arrange meetings with others when necessary	2.05	2.08	.03	9	2.07	2.09	.02	12
6. Availability of others for 'spur of the moment' discussions or phone calls	2.05	2.06	.01	14	2.05	2.02	.03	10
Factor B. Work Scheduling								
7. Organization of your work	1.91	1.86	.05	6	2.02	1.95	.07	6

Table 71 cont'd.

Organizational Performance	Direction of Change				Importance of Change				
	Non		Discrepancy		Management		Non		
	Management Mean N= 57	Discrepancy Rank	Management Mean N= 72	Discrepancy Rank	Management Mean N= 57	Discrepancy Rank	Management Mean N= 72	Discrepancy Rank	
8. Availability of office equipment	1.93		1.95	.02	11		1.95	.10	4
9. Desirability of respondent's Department as a place to work	2.07		2.03	.04	7		1.82	.14	1
10. Degree of fatigue associated with your daily work assignments	2.11		2.05	.06	5		1.97	.01	13
11. Travel to and from work	2.05		2.09	.04	7		1.92	.08	5
Factor C. Service to the Public									
12. The service your department provides to other departments	1.81		1.89	.08	4		2.00	.04	8
13. The service your department provides to the public	1.75		1.94	.19	1		2.00	.11	3
D. Other Variables									
14. Your over-all work performance	1.81		1.80	.01	14		1.90	.12	2
15. The availability of services such as dining rooms, elevators and cafeterias	2.04		2.06	.02	11		2.02	.04	8

cafeterias, (8) Availability of office equipment and (4) Quality of communications about work assignments. These latter 3 items shared tied ranks.

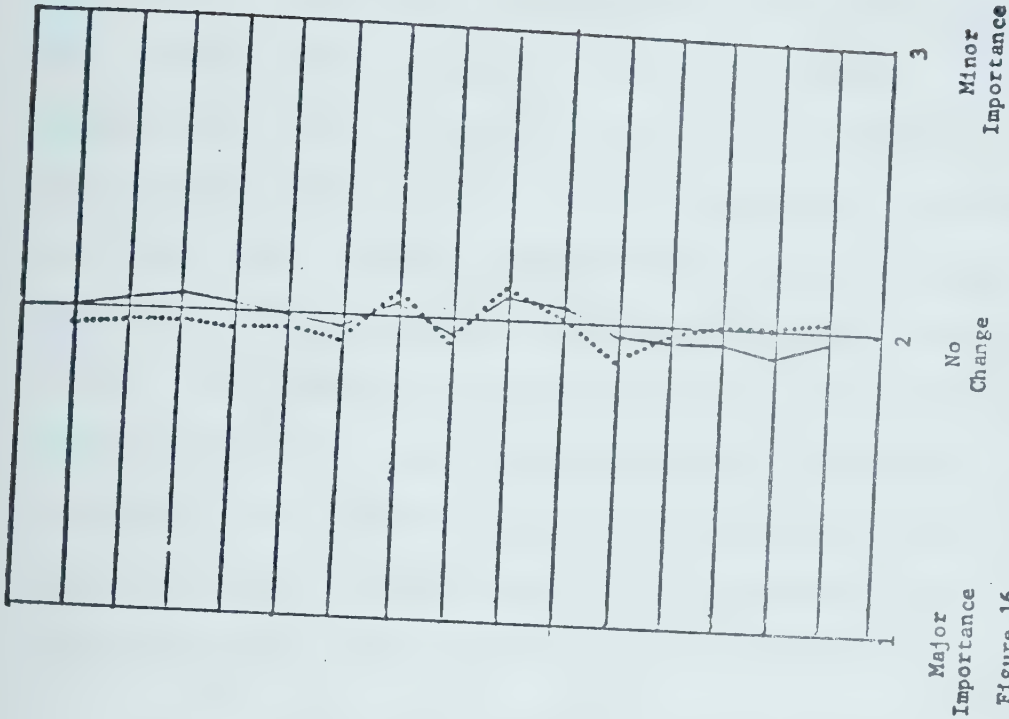
Importance of Change. Figure 16 presents a profile of the Standard Hours management and non-management mean scores concerning perceptions of the importance of changes in organizational performance. Although the management and non-management means did not reveal statistically significant differences it was found that the management mean was higher than the non-management mean for 9 of the 15 items, indicating that the former group tended to perceive changes in these items to be of less importance.

Table 71 shows that in descending order the three highest discrepancies were obtained for the following items: (a) Desirability of the respondent's department as a place to work; (2) Your overall work performance; and (13) The service your department provides to the public.

On the other hand, the greatest consensus was obtained for the following 3 items because they contained the lowest discrepancies: (10) Degree of fatigue associated with your daily work assignments; (5) Ability to arrange meetings with others when necessary; and (6) Availability of others for 'spur of the moment' discussions and phone calls, and (4) Quality of communication about work assignments. These last two items shared tied ranks.

Organizational Performance

- 1. Travel to and from work
- 2. Organization of your work
- 3. Availability of office equipment
- 4. Your over-all work performance
- 5. Availability of people with whom you must work
- 6. Degree of participation in decisions about work assignments
- 7. Degree of difficulty in scheduling work requiring others
- 8. Quality of communication about work assignments
- 9. Ability to arrange meetings with others when necessary
- 10. Availability to other for 'spur of the moment' discussions or phone calls
- 11. Desirability of respondent's Department as a place to work
- 12. Degree of fatigue associated with your daily work assignments
- 13. The service your department provides to other departments
- 14. The service your department provides to the public
- 15. The availability of services such as dining rooms, elevators and cafeterias



..... Non Management

Management

Figure 16
Profile of Standard Hours Management and Non Management Mean Scores Relating To the Importance of Changes in Organizational Performance

Comparison of Management and Non-Management
Perceptions of Organizational
Performance for the Compressed
Hours Group.

Direction of Change. An examination of Table 72 showed that significant differences were found between three pairs of mean scores among these 15 items, at the .05 probability level. These were: (1) Availability of people with whom you must work; (2) Availability of others for 'spur of the moment' discussions or phone calls; and (3) Desirability of respondents branch as a place to work. Also at the .10 probability level, a significant difference was found between the means for variable (5) Ability to arrange meetings with others when necessary. In all cases the management mean exceeded the non-management mean indicating the latter group noted greater improvement in these items.

Importance of Change. Table 72 showed that no significant differences were found among any of these 15 items relating to organizational performance at the .05 probability level. However, the management mean 2.00 was found to be significantly higher than the non-management mean of 1.54 at the 0.09 probability level for variable (14) Your overall work performance. Thus the non-management group attributed more importance to a given change in this variable.

Discrepancy Analysis for Compressed Hours
Management and Non-Management Mean Scores for
Organizational Performance

Table 72
Significant Differences Between Management and Non-Management Perceptions
of Organizational Performance -- Compressed Hours Group

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N=6	Non Management Mean N=31	t	Probability	Management Mean N=6	Non Management Mean N=31	t	Probability
Factor A. Organizational Communication								
1. Availability of people with whom you must work	2.67	2.03	3.35	0.00 ^b	1.83	2.07	-1.17	0.26
2. Degree of participation in decisions about work assignments	2.00	1.74	1.22	0.12	2.00	1.86	0.59	0.56
3. Degree of difficulty in scheduling work requiring others	2.33	2.07	1.53	0.14	2.17	2.10	0.26	0.80
4. Quality of communication about work assignments	2.00	1.84	0.75	0.46	2.00	1.93	0.29	0.78
5. Ability to arrange meetings with others when necessary	2.33	1.96	1.85	0.07 ^c	2.17	2.10	0.24	0.81
6. Availability of others for 'spur of the moment' discussions or phone calls	2.83	2.07	3.86	0.00 ^b	2.00	2.21	-0.76	0.46
Factor B. Work Scheduling								
7. Organization of your work	1.83	1.84	0.58	0.57	1.83	1.89	-0.19	0.85

Table 72 cont'd.

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N=6	Non Management Mean N=31	t	Probability	Management Mean N=6	Non Management Mean N=31	t	Probability
8. Availability of office equipment	1.83	1.84	-0.03	0.98	1.83	2.04	-0.91	0.37
9. Desirability of respondent's Department as a place to work	2.83	2.07	3.86	0.00 ^b	1.83	1.81	0.07	0.95
10. Degree of fatigue associated with your daily work assignments	1.83	1.87	-0.17	0.86	2.00	1.86	0.59	0.56
11. Travel to and from work	1.83	1.84	-0.03	0.98	1.83	2.07	-1.17	0.25
Factor C. Service to the Public								
12. The service your department provides to other departments	1.67	1.81	-0.65	0.26	1.67	2.07	-1.52	0.14
13. The service your department provides to the public	1.50	1.77	-1.22	0.23	1.67	2.07	-1.32	0.20
D. Other Variables								
14. Your over-all work performance	1.83	1.48	1.58	0.12	2.00	1.54	1.76	0.09 ^c
15. The availability of services such as dining rooms, elevators and cafeterias	1.83	1.90	-0.39	0.70	1.83	2.07	-1.02	0.32

* Welch t prime adjustment of t-tests of unequal variances.

a Significant at .05 level.

b Significant at .01 level.

c Significant at .10 level.

Direction of Change. An examination of Figure 17 showed a profile of the Compressed Hours mean scores covering the direction of change in organizational performance. It was found that for 8 of the 15 items the management mean was higher than the non-management mean indicating that the latter group perceived the direction of change in these items to be more acceptable.

The information presented in Table 73 showed that the greatest dissensus occurred among the following 3 items, that in order of priority contained the highest discrepancies: (9) Desirability of respondent's department as a place to work; (6) Availability of others for 'spur of the moment' discussions and phone calls; and (1) Availability of people with whom you must work.

On the other hand Table 73 showed that the 3 smallest discrepancies were obtained among the following items, indicating the greatest level of consensus among these two groups: (11) Travel to and from work; (7) Organization of your work; and (8) Availability of office equipment.

Importance of Change. Figure 18 presents a profile of the Compressed Hours mean scores concerning the perceived importance of changes in these items relating to organizational performance. Although, the management and non-management means were not found to be significantly

Organizational Performance

1. Travel to and from work
2. Organization of your work
3. Availability of office equipment
4. Your over-all work performance
5. Availability of people with whom you must work
6. Degree of participation in decisions about work assignments
7. Degree of difficulty in scheduling work requiring others
8. Quality of communication about work assignments
9. Ability to arrange meetings with others when necessary
10. Availability to other for 'spur of the moment' discussions or phone calls
11. Desirability of respondent's Department as a place to work
12. Degree of fatigue associated with your daily work assignments
13. The service your department provides to other departments
14. The service your department provides to the public
15. The availability of services such as dining rooms, elevators and cafeterias



Figure 17
 Profile of Flexible Hours Management and Non Management Mean Scores Relating
 To the Direction of Changes in Organizational Performance

Table 73

Discrepancy Analysis of Management and Non Management Perceptions
of Organizational Performance -- Comprised Home Group

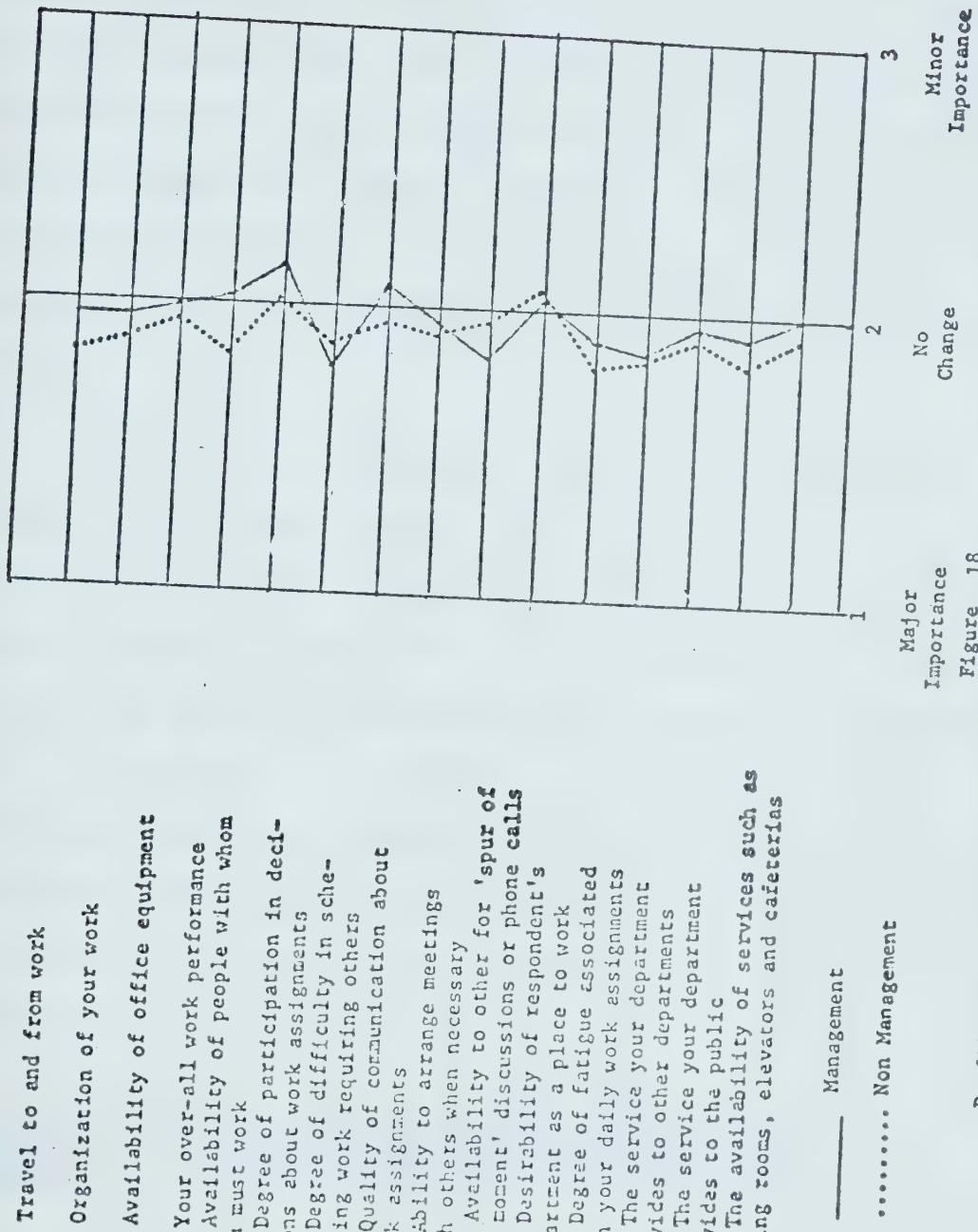
Organizational Performance	Direction of Change				Importance of Change		
	Management Mean N= 6	Non Management Mean N= 31	Discrepancy Rank	Discrepancy Rank	Management Mean N= 6	Non Management Mean N= 31	Discrepancy Rank
Factor A. Organizational Communication							
1. Availability of people with whom you must work	2.67	2.03	.64	3	1.83	2.07	.14 6
2. Degree of participation in decisions about work assignments	2.00	1.74	.26	7	2.00	1.86	.14 6
3. Degree of difficulty in scheduling work requiring others	2.33	2.07	.26	7	2.17	2.10	.07 10
4. Quality of communication about work assignments	2.00	1.84	.16	9	2.00	1.93	.07 10
5. Ability to arrange meetings with others when necessary	2.33	1.96	.37	4	2.17	2.10	.07 10
6. Availability of others for 'spur of the moment' discussions or phone calls	2.83	2.07	.76	1	2.00	2.21	.21 6
Factor B. Work Scheduling							
7. Organization of your work	1.83	1.84	.01	13	1.83	1.89	.06 13

Table 73 cont'd.

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N= 6	Non Management Mean N= 31	Discrepancy Rank	Discrepancy Rank	Management Mean N= 6	Non Management Mean N= 31	Discrepancy Rank	Discrepancy Rank
8. Availability of office equipment	1.83	1.84	.01	13	1.83	2.04	.11	9
9. Desirability of respondent's Department as a place to work	2.83	2.07	.76	1	1.83	1.81	.02	14
10. Degree of fatigue associated with your daily work assignments	1.83	1.87	.04	12	2.00	1.86	.14	6
11. Travel to and from work	1.83	1.84	.01	13	1.83	2.07	.24	4
Factor C. Service to the Public								
12. The service your department provides to other departments	1.67	1.81	.14	10	1.67	2.07	.40	2
13. The service your department provides to the public	1.50	1.77	.27	6	1.67	2.07	.40	2
D. Other Variables								
14. Your over-all work performance	1.83	1.48	.35	5	2.00	1.54	.46	1
15. The availability of services such as dining rooms, elevators and cafeterias	1.83	1.90	.07	11	1.83	2.07	.24	4

Organizational Performance

- 1. Travel to and from work
- 2. Organization of your work
- 3. Availability of office equipment
- 4. Your over-all work performance
- 5. Availability of people with whom you must work
- 6. Degree of participation in decisions about work assignments
- 7. Degree of difficulty in scheduling work requiring others
- 8. Quality of communication about work assignments
- 9. Ability to arrange meetings with others when necessary
- 10. Availability to other for 'spur of the moment' discussions or phone calls
- 11. Desirability of respondent's Department as a place to work
- 12. Degree of fatigue associated with your daily work assignments
- 13. The service your department provides to other departments
- 14. The service your department provides to the public
- 15. The availability of services such as dining rooms, elevators and cafeterias



Profile of Flexible Hours Management and Non Management Mean Scores Relating To the Importance of Changes in Organizational Performance

different, it was found that for 8 of the 15 items the non-management mean was higher than the management mean indicating that the former group tended to perceive changes in these items to be of lesser importance. An examination of Table 73 shows that the three items that contained the greatest discrepancies, indicating the most disagreement between these two groups included: (14) Your overall work performance; (12) The service your branch provides to other branches' and (13) The service your branch provides to the public.

On the other hand the three items containing the smallest discrepancies were: (2) Desirability of respondents branch as a place to work; (7) Organization of your work; and (3) Degree of difficulty in scheduling work requiring others, (4) Quality of communication about work assignments, and (5) Ability to arrange meetings with others when necessary. These last three variables shared tied ranks. For these items these two groups perceived the highest level of agreement concerning the importance of changes in these variables.

Comparison of Management and Non-Management
Perceptions of Organizational Performance for the
Flexible Hours Group.

Direction of Change. The data presented in Table 74 indicates that only two of the 15 items related to organizational performance contained significant differences between the mean scores, at the .05 level of probability.

Table 74
Significant Differences Between Management and Non Management Perceptions
of Organizational Performance -- Flexible Hours Group

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N= 35	Non Management Mean N= 188	t	Probability	Management Mean N= 35	Non Management Mean N= 188	t	Probability
Factor A. Organizational Communication								
1. Availability of people with whom you must work	2.15	1.99	1.40*	0.17	2.21	2.01	1.68*	0.10
2. Degree of participation in decisions about work assignments	1.76	1.85	-1.23	0.22	1.81	1.89	-0.90	0.37
3. Degree of difficulty in scheduling work requiring others	2.06	1.92	1.50	0.14	2.09	1.92	1.78	0.08 ^c
4. Quality of communication about work assignments	1.94	1.87	0.99	0.32	1.94	1.91	0.38	0.70
5. Ability to arrange meetings with others when necessary	1.88	1.91	-0.28	0.78	1.85	1.93	-0.93	0.35
6. Availability of others for 'spur of the moment' discussions or phone calls	2.06	2.10	-0.44	0.66	2.03	2.06	-0.31	0.76
Factor B. Work Scheduling								
7. Organization of your work	1.76	1.59	1.89.	0.06 ^c	1.94	1.85	0.76	0.44

Table 74 cont'd.

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N=35	Non Management Mean N=188	t	Probability	Management Mean N=35	Non Management Mean N=188	t	Probability
8. Availability of office equipment	1.91	1.81	0.52	0.60	2.00	1.96	0.48	0.63
9. Desirability of respondent's Department as a place to work	1.70	1.59	1.10	0.27	1.88	1.71	1.44	0.15
10. Degree of fatigue associated with your daily work assignments	1.88	1.70	1.72	0.09	1.84	1.83	0.16	0.87
11. Travel to and from work	1.79	1.61	2.10	0.04 ^a	1.94	1.77	1.43	0.15
Factor C. Service to the Public								
12. The service your department provides to other departments	1.79	1.80	-0.07 ^c	0.95	1.97	1.92	0.61	0.55
13. The service your department provides to the public	1.79	1.71	0.94	0.35	1.94	1.81	1.21	0.23
D. Other Variables								
14. Your over-all work performance	1.70	1.53	1.72	0.09	2.03	1.75	2.27	0.02 ^a
15. The availability of services such as dining rooms, elevators and cafeterias	1.85	1.69	2.20 [*]	0.03 ^a	2.00	1.89	1.19 [*]	0.24

* Welch t prime adjustment of t-tests of unequal variances.

^a Significant at .05 level.^b Significant at .01 level.^c Significant at .10 level.

These were : (11) Travel to and from work; and (15) The availability of services such as dining rooms, elevators and cafeterias. In both cases the management group mean exceeded the non-management mean score, indicating the latter group perceived greater improvement in these items. However, two more variables contained significant differences at the .10 level of probability. Differences were found for variable (10) Degree of fatigue associated with your daily work assignments, and variable (14) Your overall work performance. In both cases the non-management personnel indicated greater improvement since adopting Flextime.

Importance of Change. Only one item, (14) Your overall work performance obtained mean scores that were significantly different at the .05 probability level. The management mean, 2.03 indicated that any change in this item tended to be less important, than the non-management group mean of 1.75, who perceived any changes to be of more major importance. However, the obtained mean scores for variable (3) Degree of difficulty in scheduling work requiring others, were significantly different at the .08 probability level. The non-management group attributed more importance to any change in this variable.

Discrepancy Analysis for Flexible Hours Management and Non-Management Mean Scores for Organizational Performance

Direction of Change. Figure 19 showed a profile of the Flexible Hours mean scores concerning the direction of

Organizational Performance

1. Travel to and from work
2. Organization of your work
3. Availability of office equipment
4. Your over-all work performance
5. Availability of people with whom you must work
6. Degree of participation in decisions about work assignments
7. Degree of difficulty in scheduling work requiring others
8. Quality of communication about work assignments
9. Ability to arrange meetings with others when necessary
10. Availability to other for 'spur of the moment' discussions or phone calls
11. Desirability of respondent's Department as a place to work
12. Degree of fatigue associated with your daily work assignments
13. The service your department provides to other departments
14. The service your department provides to the public
15. The availability of services such as dining rooms, elevators and cafeterias

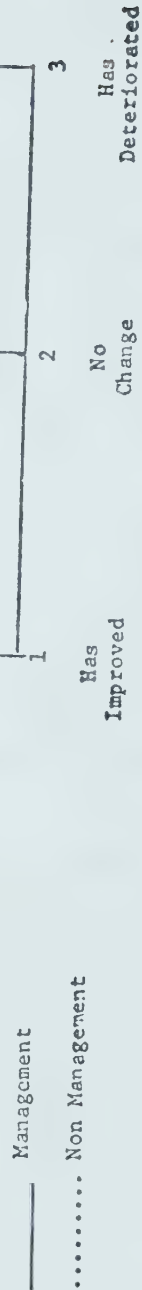


Figure 19

Profile of Compressed Hours Management and Non Management Means Scores Relating To the Direction of Changes in Organizational Performance

change in organizational performance. It was found that for 11 of the 15 items the management mean was higher than the non-management mean, indicating that the latter group perceived the direction of change in these items to be more acceptable.

Table 75 showed that the largest discrepancies were obtained among the following three items: (10) Degree of fatigue associated with your work assignments; (11) Travel to and from work; and (7) Organization of your work, and (14) Your overall work performance. The last two items shared tied ranks. Alternatively, Table 75 showed that the three smallest discrepancies were found for the following three items: (12) The service your department provides to other departments; (8) Availability of office equipment; and (5) Ability to arrange meetings with others when necessary.

Importance of Change. The information presented in Figure 20 showed a profile of the Flexible Hours mean scores relating to their perceptions of the importance of changes associated with organizational performance. It was found that for 12 of the 15 items the management mean was higher than the non-management mean, indicating that the latter group attributed greater importance to changes in these items.

Table 75 shows that in descending order the greatest dissensus was found among the following 3 items because they contained the highest discrepancies: (14) Your overall work

Table 75
Discrepancy Analysis of Management and Non Management Perceptions
of Organizational Performance -- Flexible Hours Group

Organizational Performance	Direction of Change				Importance of Change			
	Management Mean N=35	Non Management Mean N=188	Discrepancy	Discrepancy Rank	Management Mean N=35	Non Management Mean N=188	Discrepancy	Discrepancy Rank
Factor A. Organizational Communication								
1. Availability of people with whom you must work	2.15	1.99	.16	5	2.21	2.01	.20	2
2. Degree of participation in decisions about work assignments	1.76	1.85	-.09	9	1.81	1.89	-.08	9
3. Degree of difficulty in scheduling work requiring others	2.06	1.92	.14	7	2.09	1.92	.17	3
4. Quality of communication about work assignments	1.94	1.87	.07	11	1.94	1.91	.03	13
5. Ability to arrange meetings with others when necessary	1.88	1.91	-.03	13	1.85	1.93	-.08	9
6. Availability of others for 'spur of the moment' discussions or phone calls	2.06	2.10	-.04	12	2.03	2.06	-.03	13
Factor B. Work Scheduling								
7. Organization of your work	1.76	1.59	.17	3	1.94	1.85	.09	8

Table 75 cont'd.

Organizational Performance	Direction of Change				Importance of Change				
	Non		Discrepancy		Management		Non		
	Mean N=35	Discrepancy Rank	Mean N=188	Discrepancy Rank	Mean N=35	Discrepancy Rank	Mean N=188	Discrepancy Rank	
8. Availability of office equipment	1.91		1.88	.03	2.00	13	1.96	.04	12
9. Desirability of respondent's Department as a place to work	1.70		1.59	.11	1.88	8	1.71	.17	4
10. Degree of fatigue associated with your daily work assignments	1.88		1.70	.18	1.84	1	1.83	.01	15
11. Travel to and from work	1.79		1.61	.18	1.94	1	1.77	.17	4
Factor C. Service to the Public									
12. The service your department provides to other departments	1.79		1.80	.01	1.97	15	1.92	.05	11
13. The service your department provides to the public	1.79		1.71	.08	1.94	10	1.81	.13	6
D. Other Variables									
14. Your over-all work performance	1.70		1.53	.17	2.03	3	1.75	.28	1
15. The availability of services such as dining rooms, elevators and cafeterias	1.85		1.69	.16	2.00	5	1.89	.11	7

Organizational Performance

1. Travel to and from work
2. Organization of your work
3. Availability of office equipment
4. Your over-all work performance
5. Availability of people with whom you must work
6. Degree of participation in decisions about work assignments
7. Degree of difficulty in scheduling work requiring others
8. Quality of communication about work assignments
9. Ability to arrange meetings with others when necessary
10. Availability to other for 'spur of the moment' discussions or phone calls.
11. Desirability of respondent's Department as a place to work
12. Degree of fatigue associated with your daily work assignments
13. The service your department provides to other departments
14. The service your department provides to the public
15. The availability of services such as dining rooms, elevators and cafeterias

Management

..... Non Management

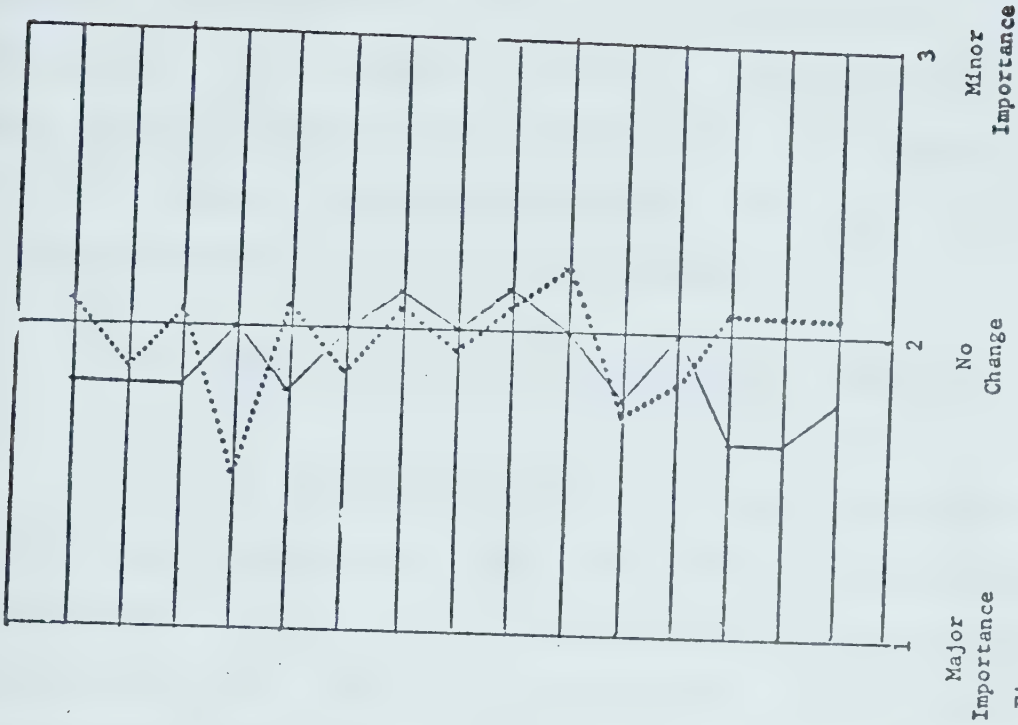


Figure 20

Profile of Compressed Hours Management and Non Management Mean Scores Relating To the Importance of Changes in Organizational Performance

performance; (1) Availability of people with whom you must work; and (3) Degree of difficulty in scheduling work requiring others. On the other hand in descending order the smallest discrepancies were contained among the following three items: (10) Degree of fatigue associated with your daily work assignments; (6) Availability of others for 'spur of the moment' discussions or phone calls; and (4) Quality of communications about work assignments.

INTER GROUP COMPARISON OF DISCREPANCY RANKINGS FOR ORGANIZATIONAL PERFORMANCE

Table 76 presents a summary of the three highest and three lowest discrepancy scores obtained for organizational performance items for each of the three groups of respondents for: (a) The direction of changes in organizational performance, and (b) The importance of changes in organizational performance.

Discrepancy Rankings and the Direction of Change

Highest Discrepancies. An examination of Table 76 revealed that there was fairly low agreement concerning the organizational performance items that incorporate the highest discrepancies between management and non-management mean perceptions. Only one item, (1) Availability of people with whom you must work was included by at least two groups, namely the Standard and Compressed Hours groups.

Lowest Discrepancies. Only one variable was included

Table 76

Summary of Intra-Group Discrepancy Rankings for Organizational Performance

Group	Three Highest Discrepancies		Three Lowest Discrepancies	
	Direction of Change	Importance of Change	Direction of Change	Importance of Change
Standard Hours - Variables	13, 1, 2	9, 14, 13	[14,6], [4,8,15]	[3, 10], 5
Compressed Hours - Variables	[6, 9], 1	14, [13, 12]	[7, 8, 11]	9,7,[5,4,3]
Flexible Hours - Variables	[10,11], [14,7]	14, 1, 3	12, 8, 5	10, 4, 6

[] = Tied Ranking.

among the 3 lowest discrepancy items for all three groups, namely (8) Availability of office equipment.

Discrepancy Ranking and the Importance of Change

Highest Discrepancies. The information contained in Table 76 showed that there was somewhat higher consensus among the three groups concerning the items that contained the highest discrepancies. Variable (14) Your overall work performance was included by all three groups, amongst their three highest discrepancies. Furthermore, variable (13) The service your branch provides to the public was included by Standard and Compressed Hours groups.

Lowest Discrepancies. Table 76 showed that there was only small agreement amongst the three groups concerning the items that contained the lowest discrepancies. Four variables were included among the lowest discrepancies by at least 2 groups. These included the following: (3) Degree of difficulty in scheduling work requiring others; (4) Quality of communication about work assignments; (5) Ability to arrange meetings with others when necessary; and (10) Degree of fatigue associated with your daily work assignments.

CORRELATION ANALYSES BETWEEN PERSONAL VARIABLES AND JOB SATISFACTION

The information presented in Chapter 3 discussed in detail the personal characteristics of each group of respondents. This section of the analysis focused upon an

examination of the relationship between these personal variables and the respondents perceptions of job satisfaction as related to their various workweek structures. Pearson product moment correlation coefficients were calculated for these personal variables and the 10 job satisfaction items. These personal variables included: Age, Sex, Occupational Category, Income, Marital Status, Dependents Requiring Assistance, Family Size, Educational Record and Employment of Spouse. A .05 probability level was used to determine statistically significant correlations. In the following discussion important correlations are defined as those coefficients that are equal to, or greater than .40.

CORRELATION ANALYSES BETWEEN PERSONAL VARIABLES AND JOB SATISFACTION

Correlation Analyses for Standard Hours Respondents

The information presented in Table 124 revealed that some significant relationships were found to exist between the Standard Hours respondents' perception of job satisfaction and all personal variables except the number of dependents who require assistance before and after work.

In only four cases did the obtained level of correlation exceed .40. These instances were: The relationship between the occupational classification of respondents and (4) The freedom they have to decide when

they will arrive and depart from work ($r=0.575$), and (5) the way your immediate supervisor is administering the program ($r=0.408$). In addition the income level of respondents was found to be significantly correlated with (4) The freedom they have to decide when they will arrive and depart from work ($r=-0.402$). Finally the level of education of respondents was also found to be significantly related to (4) The freedom they have to decide when they will arrive and depart from work ($r=-0.499$).

Correlation Analyses for Compressed Hours Respondents

A summary of the obtained correlation coefficients for the Compressed Hours respondents is presented in Table 125. It was found that very few significant relationships were found between the Compressed Hours respondents personal variables and their perceptions of job satisfaction. No significant correlations were obtained for the following variables at the .05 level of significance: Sex, Occupational Classification, Marital Status, Family Size, and the Employment Status of the Respondents Spouse.

For this Compressed Hours group in only three instances did the obtained correlation coefficient exceed .40. First, the age of respondents was found to be significantly correlated with (8) Changes which have occurred in the way work is done ($r=-0.498$) and (9) The way you now organize and complete your work ($r=-0.526$).

Secondly, for respondents who had dependents requiring assistance before and after work a significant relationship was found for (6) The arrangements you have to travel to and from work ($r=0.425$).

Correlation Analyses for Flexitle Hours Respondents

The information presented in Table 126 showed the relationship between Flexitime respondents personal variables and their perceptions of job satisfaction. For this group few significant relationships were found to exist between the Flexitime respondents personal variables and their perceptions of job satisfaction. No significant correlations were obtained for the following variables at the .05 level of significance: Income, Marital Status, Family Size, Educational Record, and Employment Status of the Respondents Spouse. However, none of the obtained correlation coefficients exceeded .40.

CORRELATION ANALYSES BETWEEN PERSONAL VARIABLES AND ORGANIZATIONAL PERFORMANCE

This section of the correlation analyses focused upon the relationship between the personal variables of respondents for each group and their perceptions concerning: (a) the direction of changes in organizational performance and (b) the importance of changes in organizational performance.

(a) Direction of Change

Standard Hours Respondents. The information presented in Table 127 shows the relationship between the personal characteristics of Standard Hours respondents and their perceptions concerning the direction of changes in organizational performance. No significant relationships were found to exist between the following personal variables and perceptions concerning the direction of changes in organizational performance: Age, and Dependents requiring assistance before and after work.

However, some significant relationships were found for some of the organizational performance items and the remaining personal variables. But, for this group none of the obtained correlation coefficients exceeded .40, although many significant correlations were obtained.

Compressed Hours Respondents. An examination of Table 128 shows that very few significant correlations were found between the personal variables of the Compressed Hours respondents and their perceptions of changes in organizational performance.

For correlations concerning personal variables and the direction of change 8 correlations were obtained that exceeded a .40 level. First the age of respondents was significantly related to (11) Desirability of respondents branch as a place to work ($r = -0.408$). Secondly, the sex of

respondents was significantly correlated with (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.527$). Thirdly, the income level of respondents was also significantly correlated with (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.421$). Fourthly, whether or not respondents had dependents requiring assistance before and after work was found to be significantly correlated with (3) Availability of office equipment ($r=0.488$) and (5) Availability of people with whom you must work ($r=0.459$). Fifthly, the level of education of Compressed Hours respondents was significantly related to (10) Availability of others for 'spur of the moment' discussion or phone calls ($r=0.401$).

Finally, the employment status of the spouse of respondents was found to be significantly related to (5) Availability of people with whom you must work ($r=0.536$), (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.527$) and (14) The service your department provides to the public ($r=0.459$).

Flexible Hours Respondents. Table 129 shows that few significant correlations were obtained between the personal variables of the Flextime respondents and their perceptions of the direction of any changes in organizational performance since the adoption of their Flextime structure. No significant correlations were obtained between the

organizational performance items and three of the personal variables: Marital status, Family size and the Employment status of the respondent's spouse.

None of the obtained correlation coefficients concerning the relationship between personal variables and the direction of change in organizational performance exceeded the .40 level.

(b) Importance of Change

Standard Hours Respondents. The information presented in Table 130 showed the relationship between the personal characteristics of Standard Hours respondents and their perceptions concerning the importance of changes in organizational performance. No significant relationships were found to exist between perceptions of the importance of change and two of the personal variables: Age, and Respondents who had dependents requiring assistance before and after work. For many of the remaining personal variables a large number of significant relationships were obtained. However, no significant correlations exceeding the .40 level were obtained between the personal variables relating to this group and their perceptions concerning the importance of any changes in organizational performance.

Compressed Hours Respondents. An examination of Table 131 reveals that very few significant relationships were found between the personal variables of the Compressed

Hours respondents and their perceptions relating to the importance of any changes in organizational performance since the adoption of the Compressed Workweek system. No significant differences were found to exist between their perceptions of the importance of changes in organizational performance and the following two personal variables: Occupational category, and the Employment status of the respondents spouse. Also few significant relationships were found for the remaining personal variables. Only two of the obtained correlation coefficients for this group exceeded the .40 level. It was found that the marital status of respondents was significantly related to (18) The amount of time spent with friends ($r=0.417$). Furthermore for respondents who had dependents requiring personal assistance before and after work a significant relationship was found with (12) Degree of fatigue associated with your daily work assignments ($r=0.441$).

Flexible Hours Respondents. Table 132 shows the significant relationships between the personal variables of the Flextime respondents and their perceptions relating to the importance of changes in organizational performance since their adoption of the Flextime structure. No significant relationships were found for the following two personal variables: Level of education, and the Employment status of the respondent's spouse. None of the obtained correlation coefficients for this group exceeded the .40 level.

CHAPTER SUMMARY

This chapter examined intra-group comparisons of mean responses between management and non-management personnel concerning their perceptions of job satisfaction and organizational performance.

First, it was found that few significant differences were obtained between management and non-management means relating to perceptions of job satisfaction and organizational performance among the two innovative groups. Secondly, correlation coefficients were obtained for the personal characteristics of respondents and their perceptions of job satisfaction and organizational performance. Here again few correlation coefficients were obtained that were higher than .40, although many significant correlations were obtained that were less than .40. The following chapter continues with inter-group comparisons of data gathered for this study.

Chapter 7

RESEARCH FINDINGS: INTRA-GROUP COMPARISON OF ALTERATIONS IN THE WORKWEEK AND ORGANIZATIONAL CHANGE

This is the second of two chapters that focus upon intra-group analysis of the effects of innovations in the management of time. The first section of this chapter examines organizational changes within the Flextime sub-population examining factors such as changes in the pattern of working hours, and changes in operational costs. Secondly, this chapter analyzed some aspects of organizational change associated with the introduction of the Compressed Workweek such as changes in the patterns of working hours, operational costs and consumption spending patterns and child minding problems. Finally, this chapter presents an examination of the Standard hours respondents perception of the limitations of various innovations in the allocation of time.

CHANGES IN THE PATTERN OF HOURS OF WORK AND THE FLEXTIME CONCEPT

Although there is some slight variation in the application of the Flextime concept across the various branches of the Department of Education a summary of the major characteristics of this model is presented in Figure 21. The implementation of the Flextime concept across these various branches has also been associated with a number of

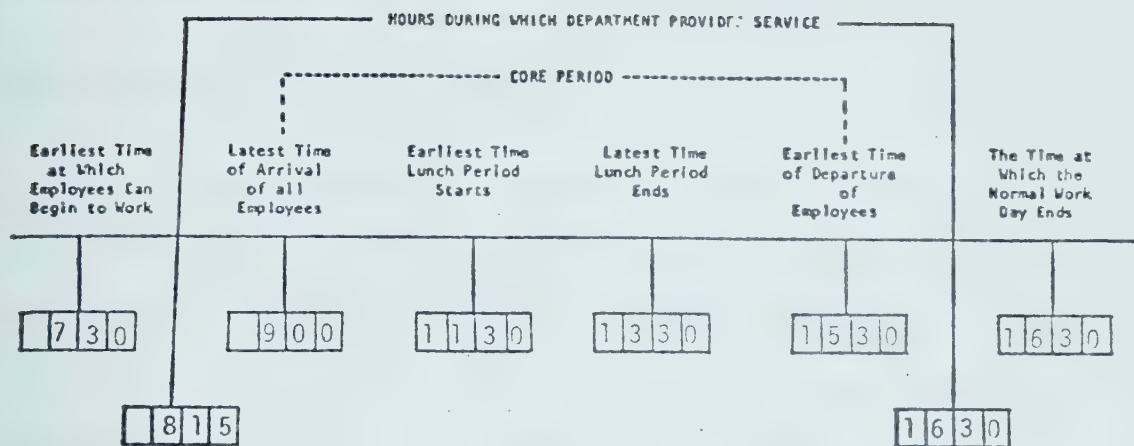


Figure 21

Utilization of Flextime Model

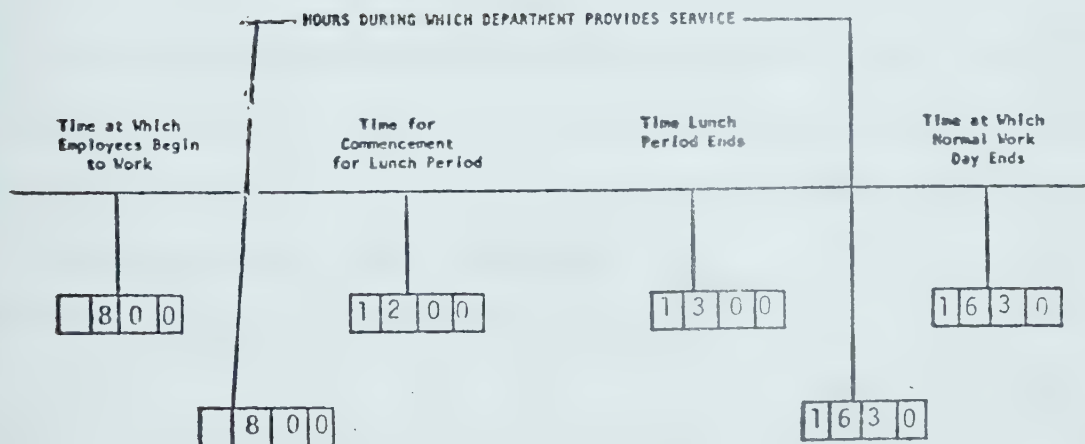


Figure 22

Utilization of Compressed Workweek Model

changes concerning the hours of work of employees that need to be recognized if organizational communication and work scheduling is to be effective. The major findings are discussed in the following section of this chapter.

Selection of Hours of Work

It was found that there was some variation among the branches employing the Flextime model regarding the methods they have employed to select the hours of work within their various organizational units. The most common method used to determine working hours under this Flextime model was for the employee to determine his own hours of work within a particular branch. However, in approximately one third of

Table 77

Frequency and Percentage Distribution for
Method used to Select Hours of Work for
Flextime Respondents

Method	f	%
(1) By yourself	134	61.2
(2) In consultation with supervisor	76	34.7
(3) Selection made by supervisor alone	9	4.1
N	219	100

the reported cases this decision involved prior consultation with the employees supervisor. This information is presented

in Table 77.

Commencement of Working Hours

The implementation of Flextime in these branches has also been associated with a number of changes concerning the time of departure of employees from their home, and their time of arrival at work.

Departure from Home. A summary of the modal responses concerning the times of departure of employees from home before and after the introduction of Flextime is presented in Table 78.

Table 78

Distribution of Modal Responses for
Comparison of Departure Times from
Home Pre and Post Flextime

Model Responses	Pre Flextime		Post Flextime	
	f	%	f	%
< 700 a.m.	6	3.4	17	8.5
700 a.m.	10	5.5	24	11.9
715 a.m.	9	5.0	20	10.0
730 a.m.	41	22.7	33	16.4
745 a.m.	52	28.7	30	14.9
800 a.m.	30	16.6	24	11.9
N	179	--	199	--

Thus it can be seen that the major change was that since the introduction of Flextime 30.4 percent of respondents depart from home before 715 a.m., as compared to 13.8 percent of respondents prior to the introduction of Flextime.

Arrival at Work. Furthermore, a considerable change was found concerning the times that employees commence work since the introduction of Flextime. It was found that prior to the implementation of Flextime only 21.7 percent of the respondents arrived at work before 800 a.m. However since the introduction of Flextime approximately 54.1 percent of respondents now arrive at work before 800 a.m. This information presented in Table 79.

Further investigation revealed that the most important reason provided by 36.6 percent of respondents to explain the above changes in their time of commencement of working activities was that Flextime enabled them to make adjustments in their time schedules to better accommodate changes in family and personal needs. However 19.4 percent of the respondents emphasized that improved travel to work was an important motive underlying this change, and a further 21.8 percent of the respondents emphasized that these changes were beneficial to the work situation. A summary of these findings is presented in Table 80. It

Table 79

Frequency and Percentage Distribution for the
Comparison of Arrival Times at Work
Pre and Post Flextime

Time	Pre Flextime		Post Flextime	
	f	%	f	%
< 700 a.m.	1	0.5	1	0.5
7-800 a.m.	39	21.7	113	54.1
> 800 a.m.	142	77.8	88	45.4
N	182	100	202	100

should be noted that in only 3.2 percent of the reported cases was this change initiated by the demands of the employees supervisor.

Commencement and Termination of Lunch Hours

The implementation of Flextime in these branches was also found to be associated with a number of changes concerning the commencement and termination of lunch hours of employees.

Commencement of Lunch Break Table 81 shows that prior to the introduction of Flextime 95.2 percent of respondents commenced their lunch hour at 12 noon. However since the implementation of Flextime there has been a considerable change in the range of hours during which employees take their lunch break, as only 64.4 percent of

Frequency and Percentage Distribution of the
Motives Underlying Changes in Work
Commencement Times for Flextime Respondents

Motive	f	%
To improve travel to work	42	19.4
To accommodate changes in family and personal needs	79	36.6
To accommodate the work situation	47	21.8
Requirements of supervisor	7	3.2
No changes	41	19.0
N	216	100

respondents now commence their lunch break at 12 noon.

Termination of Lunch Period. Similarly, the information presented in Table 82 shows that since the introduction of Flextime there has been a considerable change in the times during which employees terminate their lunch periods. Prior to the implementation of Flextime 87.00 percent of the respondents indicated that they completed their lunch hour at 1300 hours. However since the implementation of Flextime this figure has declined to 30.9 percent of the respondents.

Further analysis revealed that the most important reason given by 45.8 percent of the respondents for changing the time they commence their lunch period since the introduction of Flextime was so that they could better

Frequency and Distribution for the
Comparison of Times for Commencement
of Lunchbreak Pre and Post Flexitime

Commencement of Lunch break	Pre Flexitime		Post Flexitime	
	f	%	f	%
1100	2	1.0	1	0.5
1130	5	2.7	21	10.4
1145	-	-	13	6.4
1150	-	-	3	1.5
1150	-	-	3	1.5
1200	175	95.2	130	64.4
1210	-	-	1	0.5
1215	2	1.1	7	3.5
1230	-	-	18	8.9
1245	-	-	2	1.0
1300	-	-	3	1.5
N	184	100	202	100

satisfy personal needs. However 22.7 percent of the respondents emphasized that an important motive underlying this change was their desire to accommodate the needs of the work situation. This information is presented in Table 83.

Termination of Working Hours

The introduction of Flexitime in these branches have also been associated with changes concerning the time employees depart from the worksite and arrive at home.

Frequency and Percentage Distribution for the
Comparison of Times for Termination
of Lunch Breaks Pre and Post Flextime

Termination of Lunch Break	Pre Flextime		Post Flextime	
	f	%	f	%
1200	2	1.1	15	7.6
1210			1	0.5
1215			9	4.5
1225			1	0.5
1230	13	7.1	82	41.4
1234	3	1.6	13	6.6
1250			1	0.5
1300	161	87.5	61	30.9
1315	2	1.0	6	3.0
1320			1	0.5
1330	3	1.6	7	3.5
1430			1	0.5
N	184	100	198	100

Departure from Work. An examination of the information contained in Table 84 showed that since the introduction of Flextime, employees have initiated considerable changes concerning their departure times from work. Before the introduction of Flextime only 4.2 percent of the respondents indicated that they departed from their worksite before 1600 hours. However, after the introduction

Frequency and Percentage Distribution for the
Motives Underlying Changes in Times
for Commencement of Lunchbreak
for Flextime Respondents

Motive	f	%
(1) To satisfy personal needs	99	45.8
(2) To be able to leave work earlier in the evening	21	9.7
(3) To accomodate the work situation	49	22.7
(4) Requirement of supervisor	3	1.4
(5) No change	44	20.4
N	216	100

of Flextime 46.5 percent of the respondents indicated that they departed from the worksite before 1600 hours.

Arrival at Home. Similarly, changes were found concerning the times employees arrived at home before and after the introduction of Flexible working hours. Table 85 showed that prior to the introduction of Flextime only 3.4 percent of employees arrived at home before 1630 hours. However, since the implementation of Flextime 43.1 percent of respondents indicated that they now arrive home before 1630 hours.

Summary. Thus, the foregoing analysis indicates that the implementation of Flextime on an experimental basis in these branches has been associated with considerable changes

Frequency and Percentage Distribution for the
Comparison of Departure Times
from Worksite Pre and Post
Flextime

Departure Times	Pre Flextime f	%	Post Flextime f	%
< 1600	8	4.2	101	46.5
1601-1615	5	2.7	11	5.5
1616-1630	154	83.2	54	27.0
1631-1645	1	0.5	4	2.0
1646-1700	10	5.4	20	10.00
1701-1715	1	0.5	1	0.5
1716-1730	3	1.6	6	3.0
> 1730	3	1.5	3	1.5
N	185	100	200	100

in employees patterns of working hours, that could affect organizational communication and work scheduling. Important changes were found to occur among the following aspects of the arrangements of working hours: departure from home; arrival at work; commencement of lunch break, termination of lunchbreak; departure from work; and arrival at home.

CHANGES IN THE PATTERN OF HOURS
OF WORK AND THE COMPRESSED
WORKWEEK

A summary of the major characteristics of the Compressed Workweek model as implemented in the Finance,

Frequency and Percentage Distribution for the
Comparison of Times Employees
Arrive Home from Work, Pre
and Post Flextime

Arrival Times	Pre Flextime		Post Flextime	
	f	%	f	%
< 1630	6	3.4	85	43.1
1631-1645	27	15.3	16	8.1
1646-1700	61	33.5	47	23.9
1701-1715	34	19.3	16	8.1
1716-1730	39	22.0	16	8.1
1731-1745	1	0.6	8	4.1
1745-1800	3	1.7	3	1.5
> 1800	3	1.8	5	2.5

Statistics and Legislation Branch was presented in Figure 22. The implementation of this Compressed Workweek model has been associated with a number of changes concerning the pattern of working hours of respondents and the most important findings are presented in the following discussion. To facilitate effective work scheduling and organizational communication a clear understanding of any changes in the hours of work arising from this innovation is essential.

Selection of Hours of Work

It was found that in all cases, the hours of work

for employees within this Compressed Hours branch were either selected directly by the supervisor, or in consultation with the supervisor. Thus many of the following changes concerning hours of work are the result of deliberate departmental planning rather than independent decisions of organizational members. This information is presented in Table 86.

Table 86

Frequency and Percentage Distribution for Methods
Used to Select Hours of Work for
Compressed Hours Respondents

Method	f	%
(1) By yourself	-	-
(2) In Consultation with supervisor	21	60
(3) Selection made by supervisor alone	14	40
N	35	100

Commencement of Working Hours

Once the hours of work had been determined in conjunction with the desires of the supervisors in this branch, the implementation of the Compressed Hours program had been associated with a number of changes in the patterns of working hours for Compressed Hours respondents.

Departure from Home. Table 87 showed a summary of

the modal responses relating to the times respondents depart from home. The most important change evident from this table is that prior to the introduction of the Compressed Workweek 27.2 percent of respondents departed from home at or before 700 a.m. However, this percentage has increased to 41.8 percent of respondents since the introduction of the Compressed Hours system.

Table 87

Frequency and Percentage Distribution
of Modal Responses for Comparison
of Departure Times from Home
Pre and Post Compressed
Workweek

Modal Responses	Pre Compressed Workweek		Post-Compressed Workweek	
	f	%	f	%
< 700	1	3.0	4	11.2
700	8	24.2	11	30.6
705	-	-	2	5.6
715	4	12.1	4	11.1
720	3	9.1	5	13.9
725	73	9.1	-	-
730	3	9.1	6	16.7
745	6	18.1	-	-

Arrival at Work. Furthermore, a considerable change was found concerning the times that employees commence work

since the introduction of the Compressed Workweek. Prior to the introduction of the Compressed Workweek 38.2 percent of respondents arrived at work after 800 a.m. However, since the implementation of this Compressed Workweek model all respondents arrive at the worksite before to 800 a.m. This information is presented in Table 88.

Table 88

Frequency and Percentage Distribution
for the Arrival Times at Work
Pre and Post Compressed
Workweek

Time	Pre Compressed Workweek		Post Compressed Workweek	
	f	%	f	%
< 700 a.m.	-	-	-	-
700-730 a.m.	6	17.6	8	22.9
731-800 a.m.	15	44.0	26	74.4
> 800 a.m.	13	38.2	-	-
N	34	100	34	100

Commencement and Termination of Lunch Hour

The implementation of a Compressed Workweek model in this branch was also found to be associated with a number of changes concerning the commencement and termination of lunch hours of employees.

Commencement of Lunchbreak. Table 89 showed that

prior to the introduction of a Compressed Workweek 91.2 percent of respondents commenced their lunch hour at 12 noon. However since the Compressed Workweek has been introduced the incidence of staggered lunch periods is readily apparent as only 65.7 percent of respondents indicated that they commenced their lunchbreak at 12 noon. A further 28.6 percent of respondents noted that they commenced lunch at 1230 p.m.

Table 89

Frequency and Percentage Distribution for the
Comparison of Times for Commencement of
Lunchbreak Pre and Post Compressed
Work Week

Commencement of Lunch break	Pre Compressed Workweek		Post Compressed Workweek	
	f	%	f	%
1130	2	5.8	2	5.7
1200	32	94.1	23	65.7
1230	-	--	10	28.6
N	34	100	35	100

Termination of Lunchbreak. Similarly, the information presented in Table 90 showed that since the introduction of the Compressed Workweek, there has been an important change in the times employees complete their lunchbreak. Prior to the implementation of the Compressed

Hours model 94.1 percent of respondents terminated their lunchbreak at 1300 hours. However, since the implementation of this innovation in time only 30.5 percent of respondents terminate their lunchbreak at 1300 hours. It was found that 61.1 percent of respondents now terminate their lunchbreak at 1230 hours.

Table 90

Frequency and Percentage Distribution for the
Comparison of Times for the Termination
of Lunchbreaks Pre and Pcst Compressed
Workweek

Termination of Lunch Break	Pre Compressed Workweek		Pcst Compressed Workweek	
	f	%	f	%
1200	1	2.9	2	5.6
1230	2	2.9	22	61.1
1300	32	94.1	11	30.5
1330	-	-	1	2.0
N	34	100	36	100

Termination of Working Hours

Similarly, the introduction of a Compressed Hours system was found to be associated with changes concerning the times employees depart from their worksite and arrive at home.

Departure from work. An examination of the

information contained in Table 91 indicated that since the introduction of a Compressed Hours system, there have been little change regarding departure times from work. Prior to the implementation of the Compressed Hours model 93.1 percent of respondents departed from the worksite at 1630 hours. Since this innovation has been implemented this figure has remained fairly stable as now 98.5 percent of respondents leave at 1635 hours.

Table 91

Frequency and Percentage Distribution for the
Comparison of Departure Times from the
Worksite Pre and Post Compressed
Workweek

Departure Times	Pre Compressed Workweek		Post Compressed Workweek	
	f	%	f	%
1630	32	94.1	-	-
1635	-	-	34	94.5
1650	1	2.9	1	2.8
1730	1	2.9	1	2.8
N	34	100	36	100

Arrival at Home. Similarly, changes were found concerning the times respondents arrive at home since the introduction of this Compressed Hours system.

It was found that prior to the implementation of

this innovation in time 63.6 percent of the respondents arrived at home before 1700 hours. However since this innovation has been implemented respondents indicated a later arrival time at home, as only 50.6 percent noted that they still arrived at home before 1700 hours. This information is outlined in Table 92.

Table 92

Frequency and Percentage Distribution for the
Times Employees Arrive Home from Work
Pre and Post Compressed Workweek

Arrival Times	Pre Compressed Workweek		Post Compressed Workweek	
	f	%	f	%
< 1630	-	-		
1631-1645	2	6.1	2	5.6
1646-1700	21	63.6	18	50.1
1701-1715	5	15.1	11	30.3
1716-1730	3	9.0	3	8.4
1731-1745	1	3.0	1	2.8
1745-1800	1	3.0	1	2.8
N	33	100	36	100

Summary. Thus, the implementation of the Compressed Hours model within this branch has been associated with a considerable number of changes concerning the patterns of working hours of respondents and if organizational

communication and work scheduling is to be effective then these changes need to be incorporated into organizational planning.

THE IMPLEMENTATION OF A COMPRESSED WORKWEEK MODEL AND THE EFFECTS ON CONSUMPTION SPENDING

As discussed in Chapter 2, some of the previous studies focusing upon the impacts associated with the introduction of a Compressed Hours system have emphasized changes in the pattern of consumption spending among organizational participants. This section of the analysis will focus upon two aspects of changes related to consumption expenditure: (1) Changes in the level of consumption expenditure and (2) Changes in composition of consumption expenditure.

Changes in the Level and Composition of Consumption Spending

Level of Consumption Spending. An examination of the information contained in Table 93 showed that the majority of respondents 72.2 percent indicated that they spent the same amount on consumption expenditure pre and post the implementation of a Compressed Workweek. Alternatively, 11.1 percent of respondents indicated an increase in consumption spending and 16.7 percent of respondents recorded a decrease in consumption spending since this innovation has been implemented.

Frequency and Percentage Distribution
of Changes in the Level of Consumption
Spending for The Compressed Hours
Group

The Change in Consumption Expenditure	f	%
(1) Spending more than I did on a 5 day week	4	11.1
(2) Spending the same amount as I did on a 5 day week	26	72.3
(3) Spending less than I did on a 5 day week	6	16.7
N	36	100

Composition of Consumption Expenditure. Furthermore only 8.8 percent of respondents indicated that there had been any changes in the composition of their consumption expenditure. This information is outlined in Table 94, where respondents did indicate a change in the composition of their consumption expenditure since the adoption of this Compressed Hours model. Some of the items outlined by respondents are listed below:

- "Household items such as drapes, ornaments, linen, etc."
- "clothing"
- "groceries"
- "more time spending shopping for a variety of goods."

Summary. Thus it was found that for the data

Frequency and Percentage Distribution
for Changes in the Composition of
Consumption Expenditure for the
Compressed Hours Group

=====		
Changes in Composition of Consumption Expenditure	f	%

Yes	3	8.8
No	31	91.2
N	34	100

obtained for this particular branch only a small percentage of respondents indicated an increase in the level of consumption spending, and furthermore only a small percentage of respondents indicated any change in the composition of their consumption expenditure.

COMPRESSED WORKWEEK AND THE
PROVISION OF CHILD CARE
FACILITIES

As outlined in Figure 23 the implementation of a Compressed Workweek model in this branch required that employees work a 10 day workweek, within nine days. Thus for each day within this 9 day period the employees are required to spend additional time at the worksite. As outlined in Chapter 2, this longer working day has been associated with some problems in organizations for employees who have young families.

However, an examination of Table 95 showed that for

this branch only 19.4 percent of the respondents had children, and within this group only 3.2 percent of the respondents employed a paid babysitter.

Table 95

Frequency and Percentage Distribution
Outlining the Nature of Childminding
Services for Compressed Hours Respondents

=====		
Nature of Child Care Services	f	%

(1) Spouse	5	16.1
(2) Paid Babysitter	1	3.2
3) Voluntary Babysitter (friends)	-	-
4) Creche	-	-
5) Other	-	-
6) No children	25	80.6
N	31	100

In addition, none of the Compressed Hours respondents indicated that this longer work day had created any additional childminding problems for them. This information is presented in Table 96.

Summary. Thus, the implementation of a Compressed Workweek model has not been associated with any serious problems for this group related to the provision of child care services.

Frequency and Percentage Distribution for
Responses Concerning the Problematic Nature
of Child Care for Compressed Hours
Respondents

=====		
Have longer hours created a childminding problem ?	f	%

Yes	-	-
No	25	100
N	25	100

FLEXIBLE WORKING HOURS AND
CHANGES IN OPERATIONAL
COSTS

With the assistance of the Personnel Branch data was obtained from each worksite involved with an innovation in the management of time, to examine the relationship between alterations in the workweek and some aspects of operational costs. For the purposes of analysis because of the diversity of results obtained from these various branches, changes obtained concerning operational costs have been reported as follows: (1) Maximum change, (2) Minimum change, and (3) Average change. The following data has been presented to reveal changes in comparative ratios using the pre-innovative year as the base year. Appendix H provides a listing of the raw data used to develop these indices.

Absenteeism Rates. An examination of Table 97 showed that the maximum change in absenteeism after the implementation of a Flexible Workweek was a 353.5 percent

Table 97

Comparison of Absenteeism Rates Pre and Post Flextime^a

Time Period	Maximum Change (Days)		Minimum Change (Days)		Average Change ^b (Days)	
	Total Paid	Single Day or Less	Total Paid	Single Day or Less	Total Paid	Single Day or Less
Before Innovation (One Year)	100	100	100	100	100	100
After Innovation (One Year)	453.5	425	55.3	64.2	178.6	181.4
Changes in Days Absent	+353.5%	+325%	-44.7%	-35.8%	+78.6%	+81.4%

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained for ten flextime branches.

increase. Alternatively, the minimum change was found to be a 44.7 percent decline for one branch. The average change in absenteeism rates for all branches was a 78.6 percent increase after the introduction of Flextime. Further examination of Table 97 showed that for absences that were for a single day or less, one branch reported a 325 percent increase in these short absences. On the other hand, the smallest change in absences of one day or less was found to be a decline of 35.8 percent for one branch. However, on average, absences of a single day or less were found to have increased 81.4 percent for all branches. Additional investigation indicated that there was considerable change in the amount of times Flextime respondents were late for work pre and post the implementation of this innovation. The information outlined in Table 98 showed that prior to the introduction of Flextime 30.0 percent of the respondents indicated that they were late for work between 1-5 times per month. Since Flextime was introduced the respondents indicated this figure had declined to 11 percent. However, the number of respondents indicating that they were never late increased from 68 percent to 88.4 percent after the introduction of this innovation. But, it is important to note that the total number of respondents reporting late arrivals had declined from 200 to 146. This represented a 27% decline in the total number of late arrivals.

Labor Turnover. The information presented in Table

Frequency and Percentage Distribution
for Late Arrivals at the Worksites
Pre and Post Flextime

Times Late	Pre Flextime		Post Flextime	
	f	%	f	%
Never	136	68.0	129	88.4
1-5 times per month	60	30.0	16	11.0
> 5 times per month	4	2.0	1	0.7
N	200	100	146	100

99 outlines the comparative ratios for labor turnover in these branches pre and post Flextime. One branch reported a substantial increase of 81.8 percent, in labor turnover, whereas the minimum turnover of staff was reported to be a decline of 47.99 percent. However, the average labor turnover was fairly constant, as indicated by the small decline of 0.91 percent.

Average Staff Size. Table 100 showed that one branch reported a 150 increase in their average staff size since the implementation of Flextime. Alternatively, another branch reported a 14.3 percent decline. However, on average all branches reported a 37 percent increase in average staff size.

Overtime. The information presented in Table 101 showed changes in the number of days of overtime worked in these various branches. The largest change in overtime since

Table 99

Comparison of Labor Turnover Rates Pre and Post Flextime^a

Time Period	Maximum Turnover	Minimum Turnover	Average ^b Turnover
Before Innovation (One Year)	100.00	100.00	100.00
After Innovation (One Year)	181.8	52.01	99.09
Changes in Turnover Rates	+81.8%	-47.99%	-9.1%

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained from 11 flextime branches.

Table 100

Comparison of Average Staff Sizes Pre and Post Flextime^a

Time Period	Maximum Change		Minimum Change		Average Change ^b	
	Average Staff Size		Average Staff Size		Average Staff Size	
Before Innovation (Year 1, 2)	100		100		100	
After Innovation (One Year)	250		85.7		137	
Change in Average Staff Size	+150%		-14.3%		+37%	

^a Comparative proportions using pre innovative years (two year average) as a base year.

^b Based on figures obtained for eleven flextime branches.

Table 101

Comparison of Overtime Rates Pre and Post Flextime^a

Time Period	Maximum Change Days Overtime	Minimum Change Days Overtime	Average Change ^b Days Overtime
Before Innovation (One Year)	100	100	100
After Innovation	238.46	-	88.2
Change in Overtime Rates	+138.46%	-100%	-11.8%

a .Comparative proportions using pre-innovative year as a base year.

b Based on information obtained from six flextime branches.

the introduction of Flextime by any branch was an increase of 38.46 percent. On the other hand one branch reported a 100% decline in overtime since changing to a Flexible hours system. However, an average all branches reported a 11.8 percent decline in overtime.

Summary. Thus, the implementation of Flexible Working Hours has been associated with a change in a number of indicators of operational costs. On average, the largest change for all branches was found for the data relating to absenteeism rates, whereas the smallest changes were found among the data related to changes in labor turnover.

COMPRESSED WORKING HOURS AND CHANGES IN OPERATIONAL COSTS

In addition to the cost data gathered for the Flextime branches, additional data was also obtained for this Compressed Workweek branch with the assistance of the Personnel Branches with the Alberta Department of Education.

In the following analysis, a number of comparative ratios concerning costs are outlined, using the pre-innovative year as the base year. Appendix I provides a listing of the raw data used to derive these indices.

Absenteeism Rates. The information presented in Table 102 showed that for this Compressed Hours branch there has been a 3.7 percent increase in the total number of days

Table 102

Comparison of Absenteeism Rates Pre and Post Compressed Workweek^a

Time Period	Total Paid (Days)	Single Day or Less ^b
Before Innovation (June 74 - May 75)	100	100
After Innovation (June 75 - May 76)	103.7	74.5
Charges in Days Absent	+3.7%	-25.5%

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained for Finance, Statistics and Legislation Branch.

absent by employees from this worksite. However, despite this slight increase in total absenteeism there had been a 25.5 percent decline in absenteeism involving one single day or less since the adoption of this innovation.

Further analysis revealed that there was very little change in the amount of times Compressed Hours respondents were late for work pre and post the implementation of this innovation. The information presented in Table 103 revealed that 68.6 percent of respondents indicated that they were never late for work prior to the introduction of this rearranged workweek. Similarly 64.9 percent of respondents indicated they were never late for work since changing to this Compressed Hours structure.

Table 103

Frequency and Percentage Distribution for Late Arrivals at the Worksite Pre and Post Compressed Workweek

Times Late	Pre Compressed Workweek		Post Compressed Workweek	
Never	24	68.6	24	64.9
1-5 times per month	11	31.4	31	35.1
> 5 times per month	-	-	-	-
N	35	100	37	100

Labor Turnover Table 104 showed that since the implementation of the Compressed Workweek model in this branch there had been a 24 percent increase in labor turnover.

Average Staff Size. Furthermore, Table 105 indicated that since the introduction of this innovation, the average staff size had increase 8.5 percent.

Overtime. Finally, an examintion of Table 106 revealed that there had been a 25 percent decline in the amount of days overtime worked since this re-arrangement of the workweek had been introduced.

Summary. Thus the intrcdution of this Compressed Hours model with this branch had been associated with a change in a number of indicators of operational costs. The largest reported change involved a 25 percent decline in the number of days overtime worked by this staff. Alternatively, the smallest change was a slight 3.7 percent increase in the total number of paid days for which respondents were absent from the worksite.

STANDARD HOURS GROUP PERCEPTIONS
CONCERNING RESTRUCTURING OF
THE WORKWEEK

The final section of this empirical analysis focused upon the perceptions of the Standard Hours respndents concerning the potential implementation of one of these

Table 104

Comparison of Labor Turnover Rates Pre and Post Compressed Workweek^a

Time Period	Total Turnover ^b
Before Innovation (June 74 - May 75)	100
After Innovation (June 75 - May 76)	124
Change in Labor Turnover	+24%

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained for Finance, Statistics and Legislation Branch.

Table 105

Comparison of Average Staff Size Pre and Post Compressed Workweek^a

Time Period	Average Staff Size
Before Innovation (1973-74)	
Before Innovation (1974-75)	100
After Innovation (1975-76)	108.5
Changes in Staff Size	+8.5%

a Comparative proportions using pre-innovative years (two year average) as a base year.

b Based on Figures obtained for Finance, Statistics and Legislation Branch.

Table 106

Comparison of Overtime Rates Pre and Post Compressed Workweek^a

Time Period	Days Overtime
Before Innovation (June 74 - May 75)	100
After Innovation (June 75 - May 76)	75
Changes in Overtime	-25%

- a Comparative proportions using pre-innovative year as a base year.
- b Based on Figures obtained for Finance, Statistics and Legislation Branch.

innovations in the management of time.

Limitations of Innovations in the
Management of Time as Perceived
by Standard Hours Respondents

The information presented in Table 107 revealed that only 21.8 percent of the Standard Hours respondents expressed a negative interest concerning the adoption of one of these innovations in the management of time.

Table 107

Frequency and Percentage Distribution for
 Standard Hours Responses Relating to
 the Potential Adoption of a
 Re-Arranged Workweek

Potential Adoption	f	%
Yes	93	78.2
No	26	21.8
N	119	100

However, a diverse range of problems were outlined by this group to explain their negative attitude towards the implementation of some form of re-arranged workweek. Table 108 provides some sample comments provided by the Standard Hours respondents to illustrate their perceptions concerning limitation and problems associated with any restructuring of the workweek.

Table 108

Reasons for Maintaining Standard Hours
Program as Commented Upon by Standard
Hours Respondents

- =====
1. - Easier to follow a set schedule
 2. - Work is of a better quality
 3. - Less opportunity to cheat on time worked
 4. - Employees used to working together, know each other better
 5. - I like to leave work at the earliest hour possible after my 7.25 hour day
 6. - Much of our work depends upon information and participation of others in the branch and department. Others on Flex and Compressed time can (and do) cause delays.
 7. - This branch deals extensively with external clients. They should have service when they need it as they pay for it directly and indirectly
 8. - This branch has a high degree of specialization of personnel. The work of individuals (e.g. meetings, consultation by appointment, conferences, inspections etc.) necessitate quite a high degree of unavailability. Flex and Compressed time would add further time of unavailability.
 9. - I have yet to see an evaluation of Compressed time which convinces me that the output and service is not also Compressed.
 10. - Unless the working hours of the firms and school boards which we service change, we are almost committed to keep the Standard workday.
 11. - Most of the work of this branch is with school boards which work or maintain a Standard hour program. School Boards expect business transactions during this period of time. Unless one has definite staff positions, it would be difficult to meet requests of school boards.

12. - Is there any research evidence that Compressed or Flextime has not affected the output.
 13. - One of the branches in this Department works on Flextime. There have been several occasions where service could not be provided to this branch because the individual was not there.
 14. - This branch experiences many meetings with clients. Compressing the workweek would decrease the service that is provided.
 15. - New innovations such as Flextime or Compressed Workweek, would not apply in our situation with two executives and one clerical.
 16. - Our office is too small to remain open during regular hours of service expected by our publics if some people were to choose other arrangements for hours of work.
 17. - I have become used to the Standard Hours program in this office.
 18. - I'm available when the various individuals and groups I work with expect me to be available.
 19. - I prefer concluding an activity once I've attacked it, and have difficulty if my associates are not available when I wish to consult them.
 20. - There may be reasons for certain employees of a branch adopting Flex or Compressed work hours, but I would object to the Senior staff members of a branch being absent during regular office hours.
 21. - Professional staff need the clerical staff at all times.
 22. - I would prefer to continue workhours somewhat similar to those of my husband.
 23. - By the time 4:30 comes I am ready to go home -- I don't think I could hack a longer day than 7.25 hours per day at work.
-

In summary, the major limitations outlined by these respondents included the following areas: provision of

service to the public, inter-organizational communication, intra-organizational communication, productivity , worker fatigue, interface with other organizations, size of organization, family problems and non-availability of senior management personnel.

However, despite these criticisms of various forms of a re-arranged workweek Table 107 showed that 78.2 percent of Standard hours respondents favoured the implementation of some form of innovation in the management of time.

Further investigation revealed that within the group of respondents that expressed a desire to adopt one of these innovations in the arrangement of time, preferences concerning the adoption of a Flextime model or a Compressed Hours model were approximately equal with 48.9 percent of respondents expressing a preference for a Compressed Hours model and 51.1 percent of respondents expressing a preference for a Flextime model. This information is outlined in Table 109.

Perceived Advantages of a Flextime Model for Standard Hours Respondents

Some of the Standard Hours Respondents provided additional commentary concerning their perceptions relating to the potential implementation of a Flextime model within their respective branches of the Alberta Department of Education. These respondents presented a wide variety of

Frequency and Percentage Distribution for
Standard Hours Respondents Preferences
Concerning the Adoption of a Re-Arranged
Workweek

Preference	f	%
(1) Compressed Workweek	45	48.9
(2) Flextime	47	51.1
N	92	100

perceived advantages relating to the adoption of a Flextime model. For example, one respondent commented:

It is my opinion that Flextime would give an incentive to get at a project, possibly work some extra time such as 15-10-30 minutes early in the morning and part of lunch hour, if a person wished to do so, with the reward of having some time in the bank, which could be used as time off to get away early if you were going some place for a weekend or for recreational time.

Another respondent referring to the potential advantages of Flextime stated:

It enables the organization to more readily respond to personal and professional needs of staff to variation in office workload, family/household affairs.

Finally, one respondent commented:

I am already working a Flextime schedule in practice -- evening and weekend meetings are frequent, as is travelling time after regular work hours. As a result late morning starts and extended lunch hours are frequent. However, this is not recognized officially and a

Flextime program would legitimize what already occurs in practice -- and give recognition for the many excess hours compiled by one to travel to weekend and evening meetings.

These sample comments serve to illustrate some of the potential advantages of a Flextime model as perceived by the Standard Hours respondents. A listing of some of these comments is presented in Table 110 and the following potential advantages of a Flextime model were outlined: Reduction in lost working hours, increased productivity, reduction in overtime, savings in commuting time and reduction in traffic congestion, more effective use of leisure time, and better management of household and family affairs.

Table 110

Advantages of a Flextime Model as Commented Upon
by Standard Hours Respondents

=====

1. More time for hobbies and relaxation.
2. More time at home to do interesting projects or pursue hobbies further. Time to decide schedules around summertime light hours or take part in winter time activities while there is still light.
3. Good for occasional day off, which would be nice.
4. Travel to and from work could be made simpler. More free time for personal business.
5. It is my opinion that Flextime would give an incentive to get at a project, possibly work some extra time such as 15-10-30 minutes early in the morning and part of lunch hour, if a person wished to do so, with the reward of having some time in the bank which could be used as time off to get away

early if you were going some place for a week end or for recreational time.

6. Flextime would enable fieldmen to balance the workweek (in office) with overtime or long hours while on the road.
7. Enables the organization to more readily respond to personal and professional needs of staff, to variations in office workload, family/household affairs.
8. Can arrange your own time for better completion of work assignments. Employer made to give work assignments with enough time to be done properly, not given at the last minute because the secretary is available at all times.
9. Greater freedom to organize my professional activities both on and off the job.
10. Flextime would permit early starting and leaving time and thus avoid rush hour traffic.
11. More compatible to spouse's hours of work.
12. Time available to attend to personal business during regular working hours of other offices.
13. I am already working a Flextime schedule in practice -- evening and weekend meetings are frequent, as is travelling time after regular work hours. As a result, late morning starts and extended lunch hours are frequent. However, this is not recognized officially and a Flextime program would legitimize what already occurs in practices -- and give recognition for the many excess hours compiled due to travel, weekend and evening meetings.
14. It would be nice to start earlier in the summer and have more time off at the end of a week -- enjoy the weather. (But, of course, put in the required number of hours.)
15. Flextime would allow for time worked in overtime to be credited to holiday permits. A larger number of overtime hours are necessary but there is not any recognition of this in pay or time off benefits.
16. The opportunity for a day off occasionally would give my family time to spend more activities together.

17. My main reason is that so much time is spent by me in commuting between St. Albert and Edmonton. Having to travel during peak periods is a frustrating and time consuming business. With Flextime, I could avoid the great congestion of traffic.
18. Flextime is better suited to the type of work we are doing. When there are deadlines to meet we either work late at the office or take the work home with us. The stenographic help goes home at 1630 hours and is not normally available to work additional time at either end of the day.
19. I feel that some form of compensation is required for evening and Saturday that are worked. Probably "time off" would be the most acceptable.
20. The job frequently requires an extended workday, evening and week-ends. Flextime would permit time-off for extra time spend on the job. Staff would be more willing to put in the extra time when required.
21. I would like to see Flextime in our department. Personally for me I would come to work earlier and get off earlier, leaving me more time to prepare supper, shop, etc. Most important, would have a little more time to spend with my baby after picking her up from daycare.
22. My reasons are the following:
 - (1) If we had Flextime I could start earlier and come home earlier than usual. My bus connections would be better if I got off earlier and then it wouldn't take me an hour or more to get home after work.
 - (2) I could have more time for my family and my hobbies and I could play softball again if I got home earlier.
23. As a housewife I would like more time in the evenings to do things such as laundry, cleaning, cooking, etc. -- reduce noon hour to half an hour and leave at 4:00 p.m. If I have to be late or am accidentally late I could make up for it at another time rather than getting deducted or feeling guilty. If I were able to build up hours and be able to take off one day every two weeks or so my sick time would probably decrease - I get run ragged and end up needing a sick day every now and then just to catch up on rest so that I can keep going. I think Flextime would increase support staff morale. It just gives them a bit more freedom and independence

to plan their own schedule, but to know they have to act responsibly or their freedom will be taken away from them.

24. If conducted correctly and with full cooperation from all personnel the strict office routine can be eliminated. Routine is always boring, being on Flextime eliminates this. It also enables you a day off a month to catch up on your home routine, etc. I think your personal freedom as to the times you start and finish, within reason of course, is important for a better working environment.
-

Perceived Advantages of a Compressed Hours Model for Standard Hours Respondents

As discussed in Table 109, 48.9 percent of Standard Hours respondents who expressed a preference for an altered workweek, expressed a preference for a Compressed Hours model. As was the case with Flextime, these respondents perceived a diverse range of potential advantages associated with the implementation of a Compressed Hours model.

For example, one respondent stated that a Compressed Hours model would provide:

More time to carry on personal business (shopping, paying bills, etc.). For example, I recently had to have a serviceman call at my home. As his hours of work were similar to mine, it was necessary for me to ask a married daughter to spend a day at my house (at great inconvenience to her) and then the service man did not come.

In addition, another respondent commented:

I feel that we put in a lot of overtime and although some compensation is made

for this there should be some method of legitimizing the procedure and the Compressed Workweek may be one way of achieving this.

Finally, one respondent stated:

I would enjoy the Compressed Workweek entirely for the three day weekend it would give me.

A summary of the comments is presented in Table 111 and the following potential advantages of a Compressed Hours model were outlined: longer contact hours with the public, higher productivity, improved planning of work routine, increased motivation, improved handling of domestic problems, improved personnel development, better organized leisure time, reduced overtime, and improved family contact.

Table 111

Advantages of a Compressed Hour Model as Commented
Upon by Standard Hours Respondents

- =====
1. Longer hours would increase counter service for the public to obtain their needs.
 2. There would be a definite knowledge of who would be at work and when.
 3. Much more work would be finished each day.
 4. Compressed Workweek will allow me more time to pursue my studies.
 5. The extra day off would be something to look forward to and give me more time for my volunteer work or other important things.
 6. Many car and domestic maintenance needs are difficult to arrange during the normal workweek. These tend to accumulate and working time is taken.

7. A Compressed Workweek would allow for organized personal development and recreational activities.
8. I would enjoy the Compressed Workweek entirely for the 3 day weekend it would give me.
9. I feel that we put in a lot of overtime and although some compensation is made for this there should be some method of legitimizing the procedure and the Compressed Workweek may be one way of achieving this.
10. More time to carry on personal business (shopping, paying bills, etc.). For example, I recently had to have a service man call at my home. As his hours of work were similar to mine, it was necessary for me to ask a married daughter to spend a day at my house (at great inconvenience to her), and then the service man did not come.
11. More time to do household chores and outdoor work during the daylight hours. *Please note: I am not in favor of adopting a Compressed Workweek in the winter time -- only in the summer months
12. Purely for personal reasons, more time at home with family, to travel a little more, to have a day to do personal family business when business offices are open.
13. Will have more time to spend with family doing things I like to do, e.g. reading, education, gardening, music (practising), plus more time to relax. Hate to be on the "GO" constantly.
14. There are many offices etc. which are only open on the same days I am required to work. Compressed Workweek would give me an opportunity to attend to personal matters without having to take time off. For instance I would like to buy a few pieces of furniture being tendered by Alberta Government Warehouse but am unable to see them.
15. With the Compressed Workweek, it would allow a little extra time to do your personal business on the extra day, rather than take time during the workweek. (Doctor appointments, Dental appointments, and Eye doctor). Also it would allow for a long weekend more often enabling people to go out of town for a few days or to visit their families more often. It also may eliminate from time off or absenteeism.

16. The Compressed Workweek would allow two extra long-weekends per month. Even if the long-weekend is not used to good advantage, the single days in which to work around the house, or shop, or just to laze around the house and recuperate from a heavy workweek could be very beneficial.
 17. I would have a three day weekend every 2 weeks to either travel or do my personal business at leisure. That would cut down running around at noon or after supper to give a little more relaxation.
-

CHAPTER SUMMARY

First, this chapter focused upon the impact of alterations in the workweek upon changes in the pattern of working hours and operational costs for the Flextime and Compressed Hours sub-populations, and a number of changes were identified. Secondly, some aspects of organizational change within the Compressed Hours branch were examined, including changes in the level and composition of consumption expenditure and child minding problems. However, few changes were found in these areas. Finally, some of the costs and benefits associated with the potential introduction of a re-structured workweek as perceived by the Standard Hours respondents were outlined in detail, and it was found that the majority of these respondents favored some form of alteration in the structuring of the workweek.

CHAPTER 8

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

SUMMARY

The Problem

The primary purpose of this study was to examine the effects upon an organization arising from alterations in the structuring of the workweek. The basic problem was to determine if there are any significant differences in the operation of the organization as perceived by groups involved in different workweek structures. The study was designed to focus upon differences pertaining to both intra and inter-group perceptions of organizational operations and the effects of various allocations of working hours.

Inter-Group Analysis

This study examined the following aspects of the various groups' of respondents perceptions concerning the allocation of hours of work: (1) The identification of job satisfaction items upon which the groups generally agree, (2) Significant differences in selected aspects of job satisfaction, (3) Important differences in the discrepancy ranking of job satisfaction items, (4) Significant differences in selected aspects of organizational performance (5) Important differences in the discrepancy

ranking of organizational performance items, (6) Significant differences in the nature of family interaction and family relationships, (7) Changes in the nature and degree of participation in various leisure activities, (8) The nature of commuting patterns and travel arrangements.

Intra-Group Analysis

In addition to examining differences across these groups of personnel involved in different workweek structures this study also focused upon differences in perceptions of respondents working within a particular workweek structure.

First, this section of the study examined differences between management and non-management perceptions, and addressed itself to the following questions concerning the allocation of working hours: (1) Significant differences in selected aspects of job satisfaction, (2) Identification of job satisfaction variables upon which management and non-management personnel agree, (3) Significant differences in selected aspects of organizational performance, (4) Identification of organizational performance items upon which management and non-management personnel agree, (5) Significant differences in perceptions of family interaction and personal relationships, (6) The relationship between the personal characteristics of the groups and their perceptions of job

satisfaction and, (7) The relationship between the personal characteristics of these groups and their perception of organizational performance.

In addition, this section of the study also examined (8) Changes in operating costs associated with a particular innovation in the management of time, (9) Changes in the pattern of working hours associated with a particular restructuring of the workweek, (10) Changes in the level and composition of consumption spending for Compressed Workweek respondents, (11) Changes in the provision of child care facilities for Compressed Workweek respondents and (12) the perceptions of Standard Hours respondents concerning the potential implementation of some form of re-arranged workweek.

The Procedure

Data were collected from a stratified random sample of respondents from across these three identified populations: (1) Flexible Hours, (2) Compressed Hours and (3) Standard Hours. A questionnaire and an interview schedule were developed by the researcher to obtain these data and a pilot test was conducted to improve the validity and the reliability of this item pool.

Descriptive and inferential statistics were used to analyze the data. Parametric tests were used widely to

determine probability levels of statistical significance. Statistical significance was reported when the obtained probability was not greater than .05. Therefore significant differences were reported when there was a 95 percent probability that the differences obtained in the sample could be attributed to differences in the population, rather than chance error in random sampling.

1. The Findings - Inter-Group Analysis

In the first section of the data analysis inter-group differences in perceptions of organizational operations associated with various workweek structures were examined.

A. Job Satisfaction Analysis

Comparative Analysis of Job Satisfaction Priorities.

It is important to note that in almost all cases the total personnel involved in these various workweek structures indicated that they were satisfied with most aspects of their job environments. However, the findings disclosed that there was considerable dissensus across all three groups of personnel concerning their perception of both high and low rankings for these job satisfaction variables. Only one variable, (6) The arrangements personnel have to travel to and from work was included among the three highest ranking aspects of the job environment by all three groups of

respondents. However, (3) The method of keeping track of hours worked each day was included by the Standard and Compressed Hours group.

On the other hand, only one variable, (8) The utilization of the service provided by the bus system was included by all three groups of respondents among the three lowest ranking items. Furthermore, both the Standard and Compressed Hours groups included, (4) The freedom they have to arrive and depart from work and (7) The freedom they have to handle personal business during the workday, among their three lowest ranked variables.

Differences Between Means for Job Satisfaction Items. An analysis of variance procedure was employed to examine significant differences between pairs of group means among: (1) Total personnel mean scores, (2) Management mean scores and (3) Non-management mean scores.

When comparing the mean scores among the total personnel it was found that significant differences were obtained among the three groups for all of these job satisfaction variables. In every case the two groups involved in altered workweeks were significantly more satisfied with their job environment than the Standard Hours respondents.

However, excluding one exception a comparison of the

management mean scores, did not reveal any significant differences relating to the aspects of job satisfaction measured in this study. The one exception was (10) Freedom to handle personal business during the workday where the Flextime management were significantly more satisfied with their arrangements than Standard Hours managers.

Alternatively, the non-management groups revealed differences that were significant for all variables relating to job satisfaction measured in this study. In all cases the two groups involved in altered workweeks indicated higher job satisfaction than the Standard Hours group.

Comparison of Discrepancies Ranking for Job Satisfaction Items. It was found that there was fairly low agreement among the three time-groups concerning the job satisfaction variables that incorporate the highest discrepancy. This discrepancy concept refers to the absolute difference between management and non-management mean scores. No one variable was included among the three highest discrepancies for all three groups of respondents. However, two items were included among the three highest discrepancies for the Compressed and Standard Hours group. These were: (4) Freedom to handle personal business during the workday, and (5) The way your immediate supervisor is handling the program. In both cases the non-management group was more satisfied with these changes.

On the other hand, there was also considerable dissensus among the three groups concerning the variables that contained the lowest discrepancies. Only one variable, (2) The way in which the program is organized, was included by both of the groups involved in re-arranged workweeks. In this instance both groups of non-management personnel indicated a higher degree of satisfaction with program organization.

B. Organizational Performance Analysis

Differences between Means for Organizational Performance. The Scheffe Multiple Comparison of Means Test was employed to examine differences among the group mean scores for two aspects of changes in organizational performance: (1) The direction of change, and (2) The importance of the change. This analysis of variance procedure was employed to examine differences between pairs of group means among: (1) Total personnel mean scores, (2) Management mean scores and (3) Non-management mean scores.

Total Personnel. Significant differences were found among means for 8 of the 15 items related to the direction of changes that have occurred as determined by the perceptions of the total personnel in all groups. In only one case was there a significant difference between the Compressed and Flexible Hours mean scores. In all other

cases the Standard Hours group was significantly different from at least one of the groups involved in altered workweeks.

In addition significant differences were found among 5 of the items concerning the importance of changes in organizational performance. In none of these instances were any significant differences between Flextime and Compressed Hours means obtained.

Management. The findings disclosed that significant differences were found among the means for 7 of the 15 items related to the direction of change in organizational performance. In only one case was a significant difference obtained between Flextime and Compressed Hours management mean scores. Furthermore, significant differences were found among 6 of the items concerning mean scores related to the importance of changes in organizational performance. No significant differences were found between the Flextime and Compressed Hours mean scores.

Non-Management. Finally, it was disclosed that statistically significant differences related to perceptions for the direction of changes in organizational performance were found among 9 of the 15 items. Only one significant difference was found between Flextime and Compressed Hours mean scores. In addition, for mean scores relating to the importance of changes in items relating to organizational

performance significant differences were found among 6 of the 15 items. No significant differences concerning the importance of these changes were found between Flextime and Compressed Hours non-management personnel.

Comparison of Discrepancy Ranking for
Organizational Performance Items

Direction of Change. It was revealed that there was fairly low consensus among the three time-groups concerning the organizational performance items that incorporate the highest discrepancies between management and non-management perceptions. Only one item, namely (1) Availability of people with whom you must work was included by at least two groups, namely the Standard and Compressed Hours groups.

A similar finding was obtained for the lowest discrepancies outlined by these three time-groups. Only one variable, namely (8) Availability of office equipment was included among the three lowest discrepancy items for all three groups.

Importance of Change. However, there was slightly higher consensus among these three concerning the organizational performance variables that contained the three highest discrepancies relating to perceptions of the importance of any changes in organizational performance. One item (14) Your overall work performance, was included by all three groups, and (13) The service your branch provides to

the public was included by the Standard and Compressed Hours Groups. Concerning the three lowest discrepancies, no one item was included by all three time-groups. However, (5) Ability to arrange meetings with others when necessary and (3) Degree of difficulty in scheduling work requiring others, were included by both the Standard and Compressed Hours groups among their three lowest discrepancies.

C. Personal Interaction and Family Relationship Analysis

Differences Between Means for Family Interaction and Family Relationships. A Scheffe Multiple Comparison of Means Test was used to determine significant differences between pairs of group means among: (1) Total personnel mean scores, (2) Management mean scores and (3) Non-management mean scores. Two aspects of change in the Family Relationships were examined using this analysis of variance procedure: (a) Direction of change, and (b) Importance of change in these variables.

Total_____Personnel. Statistically significant differences were found among two of the four items concerning the direction of changes related to the Family Relationship factor. Significant differences were also found, among mean scores for the same two items concerning the importance of changes associated with this factor. These items with significant differences are (1) Management of

family affairs, (4) Time available to organize personal business affairs.

Management. The findings disclosed that no significant differences were found among any of the means related to items associated with the direction of change in this Family Relationship factor. However, significant differences were obtained among mean scores for 2 items concerning the importance of changes in this factor. These were: (1) Management of family affairs and (3) Amount of time spent with friends. For the former item the Compressed Hours group attributed more importance to this lack of change, than the other two groups. Alternatively for this latter item the Compressed Hours group attributed less importance to change.

Non-Management Finally, it was found that significant differences were obtained for mean scores related to two items concerned with the direction of changes in this factor. Similarly, significant differences were also found among means associated with the same two items, concerning the importance of changes in this factor. These were: (1) Management of family affairs, and (4) Time available to organize personal business affairs. For the former item the Flextime group noted greater improvement in management of family affairs, and attributed greater importance to this change than the other two time groups.

For the latter item the Compressed Hours group indicated a greater improvement than the Standard Hours group and both of the groups involved in altered workweeks attributed more importance to changes in this item.

D. Participation in Leisure Activities

It was found that for 10 of the 14 items where important differences were found relating to decreased participation in leisure activities, the two groups involved in altered workweeks indicated a greater decline than the Standard Hours group. Furthermore, for one item, namely, The level of boredom associated with leisure, the innovative groups indicated that they had experienced a greater increase in boredom than the Standard Hours group.

E. Commuting Patterns and Travel Arrangements

The findings disclosed that both of the groups associated with innovations in the management of time made greater utilization of the public transit system than the Standard Hours group. Furthermore, the two innovative groups made greater use of car pools and thus contributed to the alleviation of traffic congestion. In addition, it was found that the innovative groups tended to have more members from their car pools from outside of their immediate family than the Standard Hours group.

Finally, there was little difference found regarding

the parking costs among all groups of car commuters, but the Flextime group tended to make greater use of government parking facilities.

2. The Findings -- Intra-Group Analysis

In the second section of the data analysis intra-group differences between management and non-management personnel in perceptions of organizational operations associated with various workweek structures were examined.

A. Job Satisfaction Analysis

Differences Between Management and Non-Management Means for Job Satisfaction. A series of t-tests were conducted to determine significant differences between management and non-management means within each type of workweek structure.

Standard Hours Group. It was found that significant differences were obtained for six of the ten variables, at the .05 level of probability. In each case the management mean was lower than the non-management mean indicating that the former group was more satisfied with changes that have occurred in the level of job satisfaction in their respective branches over the last 12 months.

Compressed Hours Group. Within this branch only means related to two variables were found to be

significantly different at the .05 level of probability. In both cases the management mean was lower than the non-management mean, indicating that the former group suggested a higher level of job satisfaction regarding these variables.

Flexible Hours Group. It was found that significant differences were obtained for only two pairs of means at the .05 level of probability. In both cases the non-management mean was lower than the management mean indicating that the former group suggested a higher level of job satisfaction for these items.

Comparative Analysis of Discrepancy Ranks.

Standard Hours Group. The findings revealed that in every case the management mean was lower than the non-management mean, indicating that the latter group tended to be less satisfied with their job environment than the management group. Furthermore, it was found that in descending order the following three job satisfaction items contained the highest discrepancies concerning perceptions of change between management and non-management groups: (4) The freedom you have to decide when you will arrive and depart from work; (5) The way your immediate supervisor is administering the program; and (7) Freedom to handle personal business during the workday. On the other hand, in descending order, the Standard Hours management and non-

management group means that contained the three smallest discrepancies were: (10) The way you now complete and organize your work; (8) Your utilization of the service provided by the bus system; and (9) Changes which have occurred in the way work is done.

Compressed Hours Group. It was found that in every case the management mean was higher than the non-management mean indicating greater job satisfaction among the latter group. In addition, the findings disclosed that in descending order, the highest discrepancies were obtained among the following three items: (7) Freedom to handle personal business during the workday; (5) The way your immediate supervisor is administering the program; and (2) The way in which the program is organized. Conversely, the three items containing the smallest discrepancies were: (3) Method of keeping track of hours each day; (6) The arrangements you have to travel to and from work; and (1) The overall program in your department.

Flexible Hours Group. The findings revealed that for 9 of the 10 items for which job satisfaction scores were obtained the management mean was higher than the non-management mean, indicating that the latter group tended to be more satisfied with changes relating to their job environment since the introduction of Flextime. It was found that in order of priority, the largest discrepancies were

obtained for the following three items, indicating the greatest dissensus among management and non-management groups: (3) The method of keeping track of hours worked each day; (2) Your utilization of the service provided by the bus system; and (9) Changes which have occurred in the way work is done. In contrast to the above findings, the three items containing the smallest discrepancies were: (4) The freedom you have to decide when you will arrive and depart from work; (7) Freedom to handle personal business during the workday; and (2) The way in which the program is organized.

B. Organizational Performance Analysis

Differences Between Management and Non-Management Means for Organizational Performance. A series of t-tests were conducted to determine significant differences between management and non-management means within each type of workweek structure, focusing upon: (a) Direction of change and (b) Importance of changes in organizational performance.

Standard Hours Group. Concerning the direction of changes in organizational performance it was disclosed that significant differences were obtained for only two of the 15 items at the .05 level of probability. These variables included: (5) Availability of people with whom you must work; and (4) The service your department provides to the public. In both cases the non-management mean was higher than the management mean, indicating the latter group

perceived greater improvement in these items. However, no significant differences were found among these 15 items concerning management and non-management perceptions relating to the importance of any changes in organizational performance.

Compressed Hours Group. An examination of pairs of means related to the direction of change in organizational performance revealed that significant differences were found between three pairs of mean scores, at the .05 level of probability. These were: (1) Availability of people with whom you must work; (2) Availability of others for 'spur of the moment' discussions on phone calls; and (3) Desirability of respondents department as a place to work. In all cases the management mean was higher than the non-management mean indicating the latter group noted greater improvement in these items. In contrast to the above findings, no significant differences were found among any of these 15 items related to the importance of any changes in organizational performance.

Flexible Hours Group. For mean scores related to the direction of change in organizational performance, only two of the 15 items contained significant differences at the .05 level of probability. These were: (1) Travel to and from work; and (15) The availability of services such as dining rooms, elevators and cafeteria. In both cases the management

group mean exceeded the non-management mean score, indicating the latter group perceived greater improvement in these items. On the other hand, for means related to the importance of changes in organizational performance, only one item was found to be significantly different at the .05 level of probability. This was (4) Your overall work performance, where the management group perceived any change in this item to be of less importance than the non-management group.

Comparative Analysis of Discrepancy Ranks

Standard Hours Group-Direction of Change. Firstly, for mean scores related to the direction of changes in organizational performance, it was found that for 9 of the 15 items the non-management mean was higher than the management mean, indicating that the former group perceived the direction of change to be less acceptable. Furthermore, it was found that in order of priority, the three highest discrepancies were as follows: (13) The service your department provides to the public; (1) Availability of people with whom you must work and (2) Degree of participation in decisions about work assignments. Alternatively, in order of priority, the greatest consensus was indicated among the following three items as they contained the lowest discrepancies: (14) Your overall work performance; (6) Availability of others for 'spur of the

moment' discussions or phone calls; and (15) The availability of services such as dining rooms, elevators and cafeteria, (8) Availability of office equipment, and (4) Quality of communication about work assignments. These latter three items shared tied ranks.

Standard Hours Group-Importance of Change. It was found that the management mean was higher than the non-management mean for 9 of the 15 items, indicating that the former group tended to perceive changes in these items to be of less importance. In order of priority the three highest discrepancies were obtained for the following variables: (9) Desirability of the respondent's Department as a place to work; (2) Your overall work performance; and (13) The service your Department provides to the public. On the other hand, the greatest consensus was obtained for the following three items because they contained the lowest discrepancies: (20) Degree of fatigue associated with your daily work assignments; (5) Ability to arrange meetings with others when necessary; (6) Availability of others for 'spur of the moment' discussions and phone calls, and (4) Quality of communication about work assignments. These last two items shared tied ranks.

Compressed Hours Group-Direction of Change. It was found that for 8 of the 15 items the management mean was higher than the non-management mean, indicating that the

latter group perceived the direction of change in these items to be more acceptable. Furthermore, it was found that the greatest dissensus occurred among the following three variables, that in order of priority contained the highest discrepancies: (9) Desirability of respondent's Department as a place to work; (6) Availability of others for 'spur of the moment' discussions; and (1) Availability of people with whom you must work. In contrast to the above findings the three smallest discrepancies were obtained among the following items, indicating the highest level of consensus among these two groups: (11) Travel to and from work; (7) Organization of your work and (8) Availability of office equipment.

Compressed Hours Group-Importance of Change. It was found that for 8 of the 15 items the non-management mean was higher than the management mean indicating that the former group tended to perceive changes in these items to be of lesser importance. Further analysis revealed that the three items that contained the greatest discrepancies, indicating the most disagreement among these two groups included: (14) Your overall work performance; (12) The service your Department provides to other Departments; and (13) The service your Department provides to the public. On the other hand, the three items containing the smallest discrepancies were: (2) Desirability of respondent's Department as a place to work; (7) Organization of your work and (3) Degree of

difficulty in scheduling work requiring others, (4) Quality of communication about work assignments, and (5) Ability to arrange meetings with others when necessary. These last three variables shared tied ranks.

Flexible Hours Group-Direction of Change. It was found that for 11 of the 15 items the management mean was higher than the non-management mean, indicating that the latter group perceived the direction of change in these areas to be more acceptable. In addition, it was found that the largest discrepancies were obtained for the following three items: (10) Degree of fatigue associated with your work assignments; (11) Travel to and from work; (7) Organization of your work; and (14) Your overall work performance. The last two items shared tied ranks. Alternatively, the following three variables contained the smallest discrepancies: (12) The service your Department provides to other Departments; (8) Availability of office equipment; and (5) Ability to arrange meetings with others when necessary.

Flexible Hours Group-Importance of Change. The findings disclosed that for 12 of the 15 items the management mean was higher than the non-management mean, indicating that the latter group attributed greater importance to changes in these items. Furthermore, it was disclosed that the highest dissensus was obtained for the

following three variables as they contained the highest discrepancies: (14) Your overall work performance; (1) Availability of people with whom you must work; and (3) Degree of difficulty in scheduling work requiring others. On the other hand, in order of priority the smallest discrepancies were contained among the following three items: (10) Degree of fatigue associated with your daily work assignments; (6) Availability of others for 'spur of the moment' discussions and phone calls; and (4) Quality of communication about work assignments.

C. Family Interaction and Personal Relationships Analysis

Differences Between Management and Non-Management Mean Scores. A series of t-tests were conducted to determine significant differences between management and non-management means related to two aspects of changes in family interaction and personal relationships. These were (1) Direction of change, and (2) Importance of change.

Standard Hours Group-Direction of Change, It was found that significant differences were obtained between two pairs of mean scores at the .05 level of probability. These were: (2) Amount of time spent with family, and (3) Amount of time spent with friends. In both cases the management mean was higher than the non-management mean indicating that the former group perceived greater deterioration in changes

relating to these items.

Standard Hours Group-Importance of Change. Further examination disclosed that no significant differences were found among pairs of mean scores for these items at the .05 level of probability.

Compressed Hours Group-Direction of Change. The findings showed that at the .05 level of probability, no significant differences were obtained between the pairs of means for these items.

Compressed Hours Group-Importance of Change. The findings revealed that only one pair of mean scores was significantly different at the .05 probability level. The management mean, was significantly higher than the non-management mean for variable (3) Amount of time spent with friends. This management group indicated that any change in the amount of time they spent with their friends was less important to them, than it was for non-management personnel.

Flexible Hours Group-Direction of Change. The findings showed that at the .05 probability level significant differences were found between pairs of means for all four items. These were: (1) Management of your family affairs, (2) Amount of time spent with family, (3) Amount of time spend with friends, and (4) Time available to organize your personal business affairs. In all cases the

management mean exceeded the non-management mean indicating that the latter group perceived greater improvement in family interaction and personal relationships since the introduction of Flextime.

Flexible Hours Group-Importance of Change.

Additional examination showed that only one pair of mean scores was significantly different at the .05 probability level. The management mean was significantly higher than the non-management mean at the .01 probability level for variable (4) Time available to organize your personal business affairs. Thus the non-management group perceived changes in this item to be more important than the management group.

D. Correlation Analysis-Job Satisfaction

Pearson correlation coefficients were obtained to examine significant relationships between the personal characteristics of respondents and their perceptions of job satisfaction.

Standard Hours Group. The data disclosed that some significant relationships were found to exist between the Standard Hours group perceptions of job satisfaction and all personal variables except, the number of dependents who require assistance before and after work. However in only four cases did the obtained correlation coefficient exceed

.40. These instances were: The relationship between the occupational classification of respondents and (4) The freedom they have to decide when they will arrive and depart from work ($r=0.575$), and (5) The way your immediate supervisor is administering the program ($r=0.408$).

In addition the income level of respondents was found to be significantly correlated with (4) The freedom they have to decide when they will arrive and depart from work ($r=-0.402$). Finally the level of education of respondents was also found to be significantly related to (4) The freedom they have to decide when they will arrive and depart from work ($r=-0.499$).

Compressed Hours Group. It was found that very few significant relationships were found between the Compressed Hours personal variables and their perceptions of job satisfaction. No significant correlations were obtained for the following variables at the .05 level of significance: Sex, Occupational Classification, Marital Status, Family Size, and the Employment Status of the respondent's spouse. Furthermore, for this group in only three instances did the obtained correlation coefficient exceed .40. First, the age of respondents was found to be significantly correlated with (8) Changes which have occurred in the way work is done ($r=-0.498$) and (9) The way you now organize and complete your work ($r=-0.526$).

Flexible Hours Group. Similarly, for this group few significant relationships were found to exist between the Flextime respondents' personal variables and their perception of job satisfaction. No significant correlations were obtained for the following variables, at the .05 level of significance: income, marital status, family size, educational record, and employment status of respondent's spouse. In addition, none of the obtained correlation coefficients exceeded .40.

E. Correlation Analysis - Organizational Performance

Pearson r correlation coefficients were determined to examine significant relationships between the personal characteristics of respondents and their perception of organizational performance focusing upon: (a) direction of change and (b) importance of change.

(a) Direction of Change

Standard Hour Group. For this group none of the obtained correlation coefficients exceeded .40, although many significant correlations were obtained.

Compressed Hours Group. For correlations concerning personal variables and the direction of change eight correlations were obtained that exceeded a .40 level. First the age of respondents was significantly related to (1)

Desirability of respondent's branch as a place to work. Secondly, the sex of respondents was significantly correlated with (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.527$). Thirdly, the income level of respondents was also significantly correlated with (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.421$). Fourthly, whether or not respondents have dependents requiring assistance before and after work was found to be significantly correlated with (3) Availability of office equipment ($r=0.488$) and (5) Availability of people with whom you must work ($r=0.459$). Fifthly, the level of education of Compressed Hours respondents was significantly related to (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.401$). Finally, the employment status of the spouse of respondents was found to be significantly related to (5) Availability of people, (10) Availability of others for 'spur of the moment' discussions or phone calls ($r=0.527$) and (14) The service your Department provides to the public ($r=-0.459$).

Flexible Hours Group. None of the obtained correlation coefficients concerning the relationship between personal variables and the direction of change in organizational performance exceeded the .40 level.

(b) Importance of Change

Standard Hours Group. No significant correlations exceeding the .40 level were obtained between the personal variables relating to this group and their perceptions concerning the importance of any changes in organizational performance.

Compressed Hours Group. Only two of the obtained correlation coefficients for this group exceeded the .40 level. It was found that the marital status of respondents was significantly related to (18) The amount of time spent with friends ($r=0.417$). Furthermore for respondents who had dependents requiring personal assistance before and after work a significant relationship was found with (12) Degree of fatigue associated with your daily work assignments ($r=0.441$).

Flexible Hours Group. None of the obtained correlation coefficients for this group exceeded the .40 level.

F. Changes in Operating Costs

Flexible Hours Group. The implementation of flexible working hours had been associated with a change in a number of indicators of operational costs. On average, the largest change for all Departments was found for the data relating to absenteeism rates, where a 78.6 percent average increase was reported for all Departments. In contrast to this

finding the smallest change reported in this data related to changes in labor turnover, where a 0.91 percent average decline was recorded.

Compressed Hours Group. Similarly, the implementation of this Compressed Hours model had also been associated with changes in a number of indicators of operational costs. The largest reported change involved a 25 percent decline in the number of days overtime worked by this staff. On the other hand, the smallest change was a slight 3.7 percent increase in the total number of paid days for which respondents were absent from the worksite.

G. Changes in the Pattern of Working Hours

Flexible Hours Group. The implementation of this Flextime model had been associated with a considerable number of changes in the pattern of working hours of organizational members. Important changes were found to occur among the following aspects of the arrangement of working hours: Departure from home, Arrival at work, Commencement of lunch break, Termination of lunchbreak, Departure from work, and Arrival at home.

Compressed Hours Group. Similarly, the pattern of working hours of Compressed Hours respondents also involved a number of important changes. The pattern of working hours was determined either directly or in consultation with the

supervisor and the following aspects of working hours underwent important changes: Departure from home, Arrival at work, and Commencement and Termination of lunchbreak. However smaller changes were found concerning the time employees departed from work and arrived at home.

H. Compressed Workweek and Changes in Consumption Expenditure

The findings disclosed that for this particular branch only a small percentage of respondents indicated an increase in their level of consumption spending, and furthermore only a small percentage of respondents indicated any change in the composition of their consumption expenditure.

I. Compressed Workweek and Provision of Child Care Facilities

It was found that the implementation of a Compressed Workweek, had not created any serious child-minding responsibilities for these respondents and only 3.2 percent of the respondents employed a paid babysitter.

J. Standard Hours Perceptions of Innovations in the Management of Time

It was found that only one-fifth of the respondents expressed a negative interest in the adoption of one of these innovations in the management of time. The remaining group of respondents were almost equally divided in their

preference for Flextime or a Compressed Hours model. Most of the benefits discussed in Chapter 2 were outlined among their reasons for stating a preference for a particular model.

CONCLUSIONS AND IMPLICATIONS

A. Inter-Group Analyses

1. Perhaps the most important finding of this study was that for all of the variables related to job satisfaction measured in this study, the non-management personnel involved in altered workweeks indicated significantly more satisfaction with aspects of the job than the non-management Standard Hours group. However, a comparison of management mean scores did not reveal any significant differences relating to the aspects of job satisfaction measured in this study, with the exception of one case. The one exception was (10) Freedom to handle personal business during the workday, where the Flextime management was significantly more satisfied than Standard Hours management.

These conflicting perceptions could indicate that innovations in the management of time tend to have a more positive impact upon the level of job satisfaction for non-management personnel than they do for management personnel. This could be due to the fact that alterations in the

workweek have provided increased autonomy for non-management personnel in certain aspects of their job environment, that have previously only been the prerogative of management personnel under a Standard Hours system.

2. There was fairly low consensus among the three groups concerning the job satisfaction variables that contained the three highest and the three lowest discrepancies. This indicated that various innovations in the allocation of time have differing effects on the perceived nature of job satisfaction among management and non-management personnel employed in these various worksites. Therefore the effects of innovations in the management of time upon job satisfaction will vary according to the specific nature of the innovation, and the level of personnel within the organization. Thus, any plans to extend these innovations into additional branches in the future should take these factors into account.

3. Significant differences were found among 7 of the 15 items related to the direction of changes in organizational performance, for the management groups of respondents. Similarly, significant differences were found among 9 of these 15 variables for the non-management group. This indicated that all groups of personnel perceived the allocation of time to have a significant effect on many aspects relating to the direction of changes in

organizational performance. However, few differences were found between the Flextime and Compressed Hours group indicating that these innovations generally tended to be associated with similar effects in the operation of these worksites. This high degree of consensus among the two groups involved in altered workweeks may reflect some degree of Hawthorne effect although these findings are consistent with many of the claims from the literature.

4. However, there was fairly low consensus among all three groups concerning the direction of changes for the specific aspects of organizational performance that contained the three highest and the three lowest discrepancies. This indicates that although both management and non-management personnel disclose that the allocation of time has a significant impact on many aspects relating to the direction of changes in organizational performance, the specific nature of this impact tended to vary with the model used for time allocation. Thus if additional branches of this government department were to implement a specific innovation in time, prior consideration should be given to the suitability of this model in relation to its' potential effects upon organizational performance.

5. In addition, the findings disclosed that significant differences were found among 6 of the items related to the importance of changes in organizational

performance as perceived by the management groups. Similarly, the non-management groups disclosed that significant differences were obtained for 6 of the 15 items relating to the importance of changes in organizational performance. Thus both management and non-management personnel employed across these workweek structures considered that the allocation of time had significant effects upon organizational performance. But, there were many significant differences in their perceptions relating to whether or not these changes were of minor or major importance in their respective worksites. However, few differences concerning the importance of changes were found among the two groups involved in altered workweeks, which may also reflect some degree of Hawthorne effect. In every case these groups considered a given change to be more important than the Standard Hours group.

6. Further examination of the discrepancy rankings associated with the importance of changes in organizational performance revealed that there was considerable dissensus among these groups concerning the organizational performance variables that contained the three highest and the three lowest discrepancies. Again, this suggested that although both management and non-management personnel across these workweek structures indicated that the allocation of time has a significant impact on many aspects of organizational performance, the degree of importance associated with this

change tended to vary with the model of time allocation employed at the various worksites. Thus if some of these changes are not perceived as being very important by personnel in these various worksites, then little improvement would be expected in factors such as individual output.

7. It was found that the management personnel involved in these different workweek structures did not perceive any significant changes in family interaction and personal relationships associated with the allocation of time. However, this lack of change in two of these variables, namely (1) Management of family affairs and (2) Amount of time spent with friends was perceived as being more important to the Compressed Hours group than it was for the Flexible and Standard Hours group of managers. On the other hand, among the non-management groups of respondents significant differences were found for two variables concerning both the direction and importance of changes in family interaction and personal relationships. These were: (1) Management of family affairs and (4) Time available to organize personal business affairs.

Here again, the impacts associated with different methods of time allocation were more widely felt by non-management respondents. In most of these cases, at least one of the groups involved in altered workweeks noted a more

significant improvement in these family relationships than was indicated by the Standard Hours respondents. This improvement in social contacts among non-management personnel, could contribute towards an increase in the retention rate of non-management personnel in these worksites. Lower level organizational members may be reluctant to leave these worksites unless similar conditions are present elsewhere.

8. A further important finding of this study was that for 10 of the 14 items where important differences were found relating to decreased participation in leisure activities, the two groups involved in altered workweeks noted a greater decline than the Standard Hours group. Furthermore, for one item, namely, 'The level of boredom associated with leisure' the two groups involved in altered workweeks indicated that they had experienced a significantly greater increase in boredom than the Standard Hours group.

These findings strongly contradict the leisure benefit claims associated with restructured workweeks as outlined by researchers such as Tandan (1974), and Swart (1974). This decline in participation in leisure activities and increased boredom noted by these two groups involved in altered workweeks could indicate a need for increased effort and expenditure in recreational programs, if organizational

employees are to make effective use of their increased leisure time.

9. Finally, it was found that the two groups involved in restructured workweeks made greater utilization of the public transit system than the Standard Hours group. Furthermore, the innovative group made greater use of car pools, and tended to draw more members of their car pools from outside of their immediate family than the Standard Hours group. Thus, if organizational policy is directed towards decreasing pollution levels and traffic congestion in cities such as Edmonton it appears that alterations in the workweek have a positive contribution to make towards this goal.

B. Intra-Group Analyses

In the second section of the analysis, intra-group perceptions of organizational operations were examined.

1. First, significant differences between management and non-management perceptions of job satisfaction within each of the workweek structures were examined.

Standard Hours group. It was found that significant differences were obtained among 6 of the 10 job satisfaction variables, and in each case the management mean indicated a higher degree of job satisfaction than the non-management mean. Thus, in the future demands for a re-structuring of

the workweek in some of these branches may be expected to arise from dissatisfied non-management personnel.

Compressed Hours Group. Here, only two variables were found to be significantly different and in each case the management personnel indicated a lower degree of satisfaction than the non-management personnel. These were: (2) The way in which the program is organized and (5) The way in which your immediate supervisor is administering the program. This higher level of satisfaction among non-management personnel with these aspects of Schedule Monitoring may contribute towards a positive organizational climate within this department.

Flexible Hours group. Similarly, for this group only two variables were found to contain significant differences, and in each case the management personnel were significantly less satisfied than the non-management personnel. These were (3) The method of keeping track of hours worked each day, and (8) Your utilization of service provided by the bus system. The former issue may reflect the opinions of some management personnel concerning the use of Hengstler time keeping devices or the additional "paper work" required to record absences in Flextime departments. To improve the level of job satisfaction of Flextime management employees a review of time keeping practices could be undertaken, and revisions undertaken where necessary. However, the latter

issue may be directly related to the nature of the service provided by the Edmonton public transit system which is currently under review, and in the future some of these problems may be resolved.

2. An examination of the comparative discrepancy ranking for job satisfaction within each group indicates the major areas of consensus and dissensus. Reference to these discrepancy ranks could provide information that may contribute to more effective policy decisions directed towards improvements in the level of job satisfaction of organizational members at these various worksites.

3. In addition, an examination of the means used to determine the discrepancy rankings showed that for Standard Hours respondents, the non-management group were less satisfied than the management group with all variables related to job satisfaction. Thus if some form of altered workweek is to be adopted in the future in these branches, advance consultation with non-management personnel would be desirable if any changes in the allocation of time are to be effective.

4. On the other hand an examination of the means employed to determine the discrepancy rankings within the Compressed and Flexible Hours groups, showed that the non-management personnel noted a higher level of job satisfaction than the management personnel for almost all of

the job satisfaction variables. Then if for some reason, one of these branches was to revert to a Standard Hours system, a considerable amount of job dissatisfaction could be anticipated among non-management members.

5. Furthermore, differences between management and non-management perceptions relating to organizational performance were examined.

Standard Hours Group. Concerning the direction of changes in organizational performance it was disclosed that significant differences were obtained for only two of the 15 variables. Thus, in most cases management and non-management personnel agreed on the direction of changes in organizational performance that have occurred in these branches over the last 12 months. Furthermore, no significant differences were found among these 15 items concerning management and non-management perceptions relating to the importance of any changes in organizational performance. This high degree of consensus among management and non-management personnel concerning changes in organizational performance could provide an effective basis for dialogue among organizational members regarding the potential effects arising from the future implementation of some form of altered workweek.

Compressed Hours Group. An examination of pairs of means related to the direction of change in organizational

performance revealed that significant differences were found between three pairs of mean scores. Two of these pairs were: (1) Availability of people with whom you must work; (2) Availability of others for 'spur of the moment' discussions or phone calls. Both of these variables are related to the factor "Organizational Communication", and in both cases the management mean was higher than the non-management mean indicating the latter group noted greater improvement in organizational communication. Thus the longer working day may have provided increased contact time for communication between non-management personnel with other organizational members and this may contribute to organizational effectiveness.

Flexible Hours Group. For mean scores related to the direction of change in organizational performance, only two of the 15 items contained significant differences. These were: (1) Travel to and from work; and (15) The availability of services such as dining rooms, elevators and cafeteria. In both cases the management group mean exceeded the non-management mean score, indicating the latter group perceived greater improvement in these items. For both of these variables management personnel may have experienced greater freedom under a Standard Hours system than non-management personnel, and the Flexible Hours system may have contributed to greater autonomy in these areas for non-management personnel in these branches.

6. An examination of the comparative discrepancy rankings concerning the direction and importance of changes in organizational performance within each group indicated the major areas of consensus and dissensus. Reference to these discrepancy ranks could provide information that may contribute to more effective policy decisions directed towards improvements in the level of organizational performance at these various worksites.

7. Further examination of the means used to determine the discrepancy rankings showed some general trends. Within the Standard Hours group, the non-management personnel found the direction of change for 9 of the 15 organizational performance variables to be less acceptable than the management group perceptions. In addition, the management group attributed less importance to changes in 9 of these 15 items than the non-management group. Thus Standard Hours non-management personnel considered many changes in organizational performance to be less acceptable, and the need for changes to be very important. Thus, if organizational effectiveness is to be maximized, additional changes in many of these factors may be necessary.

8. An examination of the means used to determine the discrepancy rankings for the Compressed Hours group showed the following trend. It was found that for 8 of the 15 variables the non-management group perceived greater

improvement in organizational performance than management personnel. However, within this Compressed Hours branch the non-management group perceived changes in 8 of these 15 items to be of lesser importance than the management group. Thus if the non-management personnel do not consider the changes that have occurred in their department to be very important, then the motivation level of these personnel to react positively to such changes may not be forthcoming.

9. Further examination of the means used to determine the discrepancy rankings for the Flextime group revealed that for 11 of the 15 variables associated with the direction of changes in organizational performance, the non-management group perceived greater improvement in organizational performance than the management personnel. Similarly, it was found that for 12 of the 15 variables focusing upon the importance of changes in organizational performance, the non-management group attributed greater importance to any changes that have occurred since Flextime was implemented. Thus Flextime appears to have had a greater impact upon non-management perceptions of changes in organizational performance. These divergent perceptions concerning the degree of impact of Flextime upon organizational performance could provide a basis for future conflict among management and non-management personnel should a decision be made to revert to a Standard Hours system. Therefore it is essential that management personnel

gain a clear understanding of the non-management viewpoint if any meaningful discussions are to occur in the future concerning the allocation of time.

10. Additional analysis focussed upon significant differences between management and non-management perceptions relating to changes in family interaction and personal relationships and the allocation of time within this organization.

Standard Hours Group. It was found that significant differences were obtained between two pairs of mean scores relating to the direction of change in family interaction and personal relationships. These were: (2) Amount of time spent with family, and (3) Amount of time spent with friends. In both cases the management group perceived greater deterioration in changes relating to these items.

Thus the continuation of a Standard Hours system in some of these branches may be placing strain upon the family interaction and personal relationships of many management personnel, and this may prove to be an important reason underlying any management demands for a re-structured workweek.

Compressed Hours Group. The findings showed that no significant differences were obtained between the pairs of means for these items relating to the direction of changes

in family interaction and personal relationship. Furthermore, the findings revealed that only one pair of mean scores was significantly different, concerning perceptions relating to the importance of changes in family interaction and personal relationships. For variable (3) Amount of time spent with friends, the management group indicated that any change in the amount of time they spent with their friends, was less important to them than it was to the non-management personnel. Thus the extra day off, every two weeks under this Compressed Hours system, can be seen to be potentially very important for the social contact of non-management personnel, and this may be an important motive underlying their desire to retain this system.

Flexible Hours Group. The findings showed that significant differences were found between pairs of means for all four items focusing upon the direction of changes. These were: (1) Management of family affairs, (2) Amount of time spent with family, (3) Amount of time spent with friends, and (4) Time available to organize your personal business affairs. In all cases the non-management group perceived greater improvement in family interaction and personal relationships since the introduction of Flextime. Thus, Flextime has contributed towards a significant improvement in many aspects of family interaction and personal relationships for non-management personnel, and because of the strong impact that Flextime has had upon

Family Relationships for this group any attempt to revert to a Standard Hours system may receive strong resistance from non-management personnel.

11. A further section of the analysis examined the relationship between the personal characteristics of the respondents and their perceptions of job satisfaction. First, for the Standard Hours Group some significant relationships were found to exist between the Standard Hours group perceptions of job satisfaction and all personal variables except, the number of dependents who require assistance before and after work. However, in only four cases did the obtained correlation coefficients exceed .40. Secondly, for the Compressed Hours group, very few significant relationships were found between the Compressed Hours personal variables and their perceptions of job satisfaction, and in only three instances did the obtained correlation coefficients exceed .40. Thirdly, for the Flexible Hours group, few significant correlations were obtained, and none of the obtained correlation coefficients exceeded .40. Generally, it was found that the personal characteristics of all groups of respondents were not significantly related to their perceptions of job satisfaction.

12. Further analysis focused upon the relationship between the personal characteristics of the respondents and

their perceptions of organizational performance. First for the obtained correlation coefficients focusing upon the direction of changes in organizational performance, it was found that none of the correlation coefficients for the Standard and Flexible Hours groups exceeded .40. However, for the Compressed Hours group 8 of the obtained correlation coefficients exceeded .40.

On the other hand, for the correlation coefficients associated with the importance of changes in organizational performance, again no significant correlations exceeding .40 were obtained for the Standard and Flexible Hours groups. Alternatively, for the Compressed Hours group two of the obtained correlation coefficients exceeded .40.

Here again, it was generally found that the personal characteristics of respondents were not significantly related to their perceptions of changes in organizational performance. Only the Compressed Hours group obtained some correlation coefficients greater than .40,

13. With the assistance of the Personnel Branch data was gathered relating to a number of indicators of operational costs for these branches.

Flexible Hours Group. The implementation of flexible working hours had been associated with a change in a number of indicators of operational costs. On average, the largest

change for all branches was found for the data relating to absenteeism rates, where a 78.6 percent average increase was reported for all branches. If Flextime is used effectively, it should contribute towards a decline in absenteeism, and thus it is recommended that some of the reasons underlying this increase in absenteeism be investigated further. This high average increase in absenteeism has been greatly effected by the 353.5% increase that occurred in one branch. On the other hand in one branch absenteeism declined by 44.7%. This overall average increase could also be due to a combination of other factors such as increased staff size; greater illnesses amongst some organizational members; or poor management of Flextime by some personnel. In contrast to this finding the smallest change reported in this data related to changes in labor turnover, where a 0.91 percent average decline was recorded. It would appear that the high level of job satisfaction of Flextime employees is reflected in the slight decline in labor turnover for these branches.

Compressed Hours Group. Similarly, the implementation of this Compressed Hours model had also been associated with changes in a number of indicators of operational costs. The largest reported change involved a 25 percent decline in the number of days overtime worked by this staff. On the other hand, the smallest change was a slight 3.7 percent increase in the total number of paid days for which respondents were absent from the worksite. Thus,

the implementation of a Compressed Hours model has contributed significantly to a decline in paid overtime, which could reflect higher productivity in a given workday. Also paid absences have only shown a very slight increase despite the increase in the length of the workday, and thus any increase in the level of fatigue may not have resulted in increased illnesses.

14. Furthermore, the implementation of various innovations in the management of time has been associated with a number of changes in the pattern of working hours of respondents. The implementation of the Flextime model had been associated with a considerable number of changes in the pattern of working hours of Flextime organizational members. Important changes were found to occur among the following aspects of the arrangement of working hours: Departure from home, Arrival at work, Commencement of lunch break, Termination of lunchbreak, Departure from work, and Arrival at home. Similarly, the pattern of working hours of Compressed Hours respondents also involved a number of important changes. The pattern of working hours was determined either directly or in consultation with the supervisor and the following aspects of working hours underwent important changes: Departure from home, Arrival at work, and Commencement and Termination of lunchbreak. However smaller changes were found concerning the time employees departed from work and arrived at home.

Thus if work scheduling and organizational communication is to be effective it is important that these changes in the pattern of working hours be incorporated as a key factor in decision making in these areas.

15. Further investigation focused upon the impact of the Compressed Hours model upon the level and composition of consumption spending of Compressed Hours respondents. The findings disclosed that for this particular branch only a small percentage of respondents indicated an increase in their level of consumption spending, and furthermore only a small percentage of respondents indicated any change in the composition of their consumption expenditure. Thus, these findings do not support those reported in the studies reported by Poor (1973) where it was found that up to one-third of the workers reported an increase in the level of consumption expenditure.

16. In addition, the claims made by Carmel (1974) also were not supported by this study, as it was found that the implementation of a Compressed Workweek, and not created any serious child-minding responsibilities for these respondents and only 3.2 percent of the respondents employed a paid babysitter. This could also be due to the fact that a large percentage of the personnel were single women without families.

17. It was found that only one-fifth of the Standard Hours respondents expressed a negative interest concerning the adoption of some innovation in the management of time. The remaining four-fifths of the respondents were almost equally divided in their preferences for a Flextime or a Compressed Hours model. This finding would suggest that in the future there is considerable potential among this group to express a strong desire for a change in the pattern of working hours in their branches. If such changes are not forthcoming a considerable decline in the level of job satisfaction and organizational performance might be expected to occur.

18. No significant differences were found among both management and non-management mean scores concerning the model of time allocation employed in their branches and the service they provide to other branches. However, concerning the service they provide to the public, all groups noted some improvement, but the greatest improvement was recorded by the Flextime respondents. The clients of these branches involved in altered workweeks indicated some changes in the provision of service to the public, but in most cases the majority of respondents indicated no changes at all. However, in the Flextime branches some deterioration in (1) Availability of specific personnel with whom you must communicate and (2) Availability of personnel for 'spur of the moment discussions and phone calls' was recorded.

However, only a small minority of respondents presented this viewpoint, but some further investigation into the nature of this service may be necessary.

RECOMMENDATIONS FOR FURTHER RESEARCH

1. This study focused upon total personnel, management and non-management perceptions of alterations in the workweek and changes in organizational operations within the Alberta Department of Education. Many other educational organizations could be identified that have utilized some innovation in the management of time, such as schools, and other populations could be surveyed to determine the nature of organizational change. Such populations could include parent, student, teachers and community leaders.

2. It is recommended that further studies could be directed at cross sectional analyses. Other government departments, or education departments in other provinces, could serve as a basis for comparative research, if they utilized similar innovations in the allocation of time.

3. Time series studies could be undertaken in the same organization in following years to determine the stability of perceptions associated with alterations in the workweek. If the findings from a study of this nature are to be used as a basis for policy decisions, then time series analyses would be highly recommended by the researcher.

4. This study has adopted a macro view of many factors related to organizational change and alterations in the workweek. Many of these factors could serve as a basis for detailed micro investigation such as the effects of restructuring the workweek upon commuting patterns, leisure activities, job satisfaction, organizational performance and so on. As yet little detailed information is available for concerning the effects of change in any of these areas, and the potential for a great deal of future research is readily apparent.

5. Hage and Aiken (1970), Rogers (1962) and Bhula (1965) have emphasized the differential rate of adoption of innovations within organizations. Further studies focusing upon the adoption of various innovations in the management of time, could examine the contribution of factors such as Centralization, Formalization, Stratification, Efficiency and Output, that these authors have identified as key antecedent variables effecting the rate at which innovations are adopted within an organization.

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APPENDIX A
Statistical Analysis Used for Pilot Study
on Instrumentation

Table 112
Pearson r Correlation Co-efficients for Pilot Study - Standard Hours Group^b

Variable	Question 16				Question 17							
	Var. 1	Var. 8	Var. 2	Var. 8	Var. 3	Var. 8	Var. 9	Var. 10	Var. 13	Var. 15	Var. 16	Var. 16
Age	Pearson Prob.	-0.3878 0.013	-0.3489 0.025		-0.3439 0.025	-0.3722 0.016	-0.4447 0.005	-0.3398 0.029	-0.3923 0.012	-0.3618 0.019	-0.2982 0.049	
Income	Pearson Prob.	-0.4632 0.004a	-0.3331 0.034	Var. 2 -0.3321 0.036	Var. 3 -0.3079 0.046	Var. 9 -0.4814 0.003a	Var. 10 -0.3211 0.042	Var. 11 -0.3344 0.035	Var. 13 -0.4305 0.008a			
Number of Children	Pearson Prob.	-0.3461 0.033			Var. 2 -0.4451 0.008a	Var. 9 -0.3753 0.022	Var. 10 -0.3402 0.038	Var. 11 -0.3446 0.036	Var. 13 -0.3703 0.024	Var. 14 -0.3290 0.041		
Number of Members in Commut- ing Group	Pearson Prob.	-0.3920 0.039	Var. 7 -0.3920 0.044									

^a Significant at .01 probability level.

^b All other correlation co-efficient significant at .05 probability level.

Table 113
Pearson r Correlation Co-efficients for Pilot Study - Compressed Workweek Group^b

Variable	Question 16				Question 17			
	Var. 3	Var. 5	Var. 7	Var. 10	Var. 16	Var. 17	Var. 19	Var. 20
Age								
Pearson	-0.3929	-0.3402	-0.3893	-0.3489				
Prob.	0.011	0.023	0.033	0.020				
Income								
Pearson					Var. 1	Var. 4		
Prob.					-0.3294	-0.2885		
					0.027	0.046		
Number of Children								
Pearson					Var. 16	Var. 17		
Prob.					-0.3024	-0.2971		
					0.041	0.047		
Number of Members in Commuting Group								
Pearson					Var. 1	Var. 6	Var. 19	
Prob.					0.3978	0.3674	0.4603	
					0.022	0.035	0.010 ^a	

^a Significant at .01 probability level.

^b All other correlation co-efficients significant at .05 probability level.

Table 114
Pearson r Correlation Co-efficients for Pilot Study - Flextime Group^b

Variable	Question 16				Question 17									
	Pearson Prob.	Var. 1	Var. 2	Var. 8	Var. 5	Var. 12	Var. 11	Var. 14	Var. 15	Var. 16	Var. 18	Var. 20	Var. 13	Var. 19
Age		-0.3764 0.015	-0.3182 0.038	-0.3612 0.019	10.3429 0.025	-0.2992 0.045	-0.2977 0.046	-0.3516 0.022	-0.3474 0.024	-0.3852 0.013	-0.3053 0.042	-0.3052 0.042		
Income		-0.4353 0.006a			-0.4096 0.009a									
Number of Children		-0.2942 0.048	0.3363 0.028											
Number of Members in Commuting Group		0.4176 0.030			0.3784 0.045	-0.3935 0.039	-0.5417 0.006a	-0.3960 0.038						

^a Significant at .01 probability level.

^b All other correlation co-efficients significant at .05 probability level.

Table 115

Scheffe Analysis of Variance for Pilot Study - Job Satisfaction*

<u>Question 16</u>	<u>Pairs of Means Scores</u>		
	<u>Flex/Standard</u>	<u>Flex/Comp.</u>	<u>Comp./Standard</u>
Variable ^a 1	S	NS	S ^b
2	S	NS	NS
3	NS	NS	NS
4	S ^b	S ^b	S
5	NS	NS	NS
6	NS	NS	S
7	NS	NS	NS
8	NS	NS	S
9	NS	NS	NS
10	S ^b	S ^b	S

a See Appendix J for listing of variables.

b Also significant at .01 probability level.

S = significant NS = not significant

* Rather than report the obtained mean and the associated probability, for the purposes of this pilot report ONLY the above summation format was used.

Table 116

Scheffe Analysis of Variance for Pilot Study -
Organizational Performance and Direction of Changes

Pairs of Means Scores

<u>Question 17</u>	<u>Flex/Standard</u>	<u>Flex/Comp.</u>	<u>Comp./Standard</u>
Variable ^a 1	NS	NS	NS
2	S	NS	NS
3	NS	NS	NS
4	NS	NS	NS
5	NS	NS	NS
6	NS	NS	NS
7	NS	NS	NS
8	NS	NS	NS
9	NS	NS	NS
10	NS	NS	NS
11	S ^b	NS	S
12	NS	NS	NS
13	S	NS	NS
14	NS	NS	NS
15	S ^b	NS	NS
16	S ^b	NS	S ^b
17	S ^b	NS	S ^b
18	S ^b	NS	S ^b
19	S ^b	NS	S ^b

a See Appendix J for listing of variables.

b Also significant at .01 probability level.

S = significant

NS = not significant

Factor Analysis for Pilot Study - Job Satisfaction

Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3
V1	0.65354	0.44345	-0.05443
V2	0.70524	0.41381	0.04435
V3	0.71926	0.06313	0.02985
V4	0.26875	0.62244	-0.08846
V5	0.77652	0.29447	0.08548
V6	0.00911	-0.06390	0.76316
V7	0.06531	0.95637	0.59875
V8	0.35320	0.33445	0.27794
V9	0.47374	0.23378	0.31315
V10	0.19495	0.88841	0.10947

Transformation Matrix

	Factor 1	Factor 2	Factor 3
Factor 1	0.78523	0.59585	0.16839
Factor 2	-0.02627	-0.23965	0.97858
Factor 3	-0.61864	0.76650	0.17252

Table 118

Factor Analysis for Pilot Study - Organizational Performance

Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor' 6
V1	-0.05053	0.26638	0.39762	0.18497	0.00354	0.09756
V2	0.39698	0.26536	0.52066	0.59078	-0.14362	-0.08569
V3	0.48155	-0.07055	0.24146	0.22542	0.07303	0.69948
V4	0.19956	0.02747	0.11161	0.70415	-0.09157	0.31197
V5	0.78136	-0.12381	-0.00970	0.18373	-0.02827	0.10750
V6	0.32713	0.27255	0.12288	0.06634	0.87932	0.05096
V7	0.39259	0.26774	0.04264	-0.06693	0.64823	0.17011
V8	0.56575	-0.04977	0.20548	0.25579	0.42504	-0.08880
V9	0.63605	0.17864	0.14121	0.11901	0.22763	0.11362
V10	0.90360	0.03164	0.10600	-0.08084	0.20707	0.09108
V11	-0.09861	0.38826	0.08577	0.20409	0.36301	0.27964
V12	0.02785	0.12276	0.03114	0.35070	0.21242	0.02752
V13	0.27374	0.07134	0.93867	-0.14032	0.11085	0.06931
V14	0.08654	-0.03997	0.70044	0.21496	0.15923	0.26857
V15	0.06422	0.23297	0.19187	0.10463	0.11811	0.53282
V16	-0.09015	0.61949	0.12132	0.25649	0.19120	0.16070
V17	0.14852	0.58752	0.04304	0.11338	0.20518	-0.23628
V18	0.17690	0.91946	-0.01449	0.04654	-0.03843	0.17166
V19	-0.24162	0.70615	0.23949	-0.13880	0.36240	0.11421

Transformation Matrix

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Factor 1	0.66655	0.41143	0.42498	0.28415	0.41522	0.27577
Factor 2	-0.61688	0.75523	-0.04892	-0.09258	0.21229	-0.02062
Factor 3	-0.33925	-0.04519	0.58403	0.42443	-0.52776	0.27292
Factor 4	0.21853	0.30658	-0.63498	0.55121	-0.38159	0.09507
Factor 5	-0.25557	-0.29265	-0.26930	0.04809	0.34330	0.81015
Factor 6	-0.25913	-0.28048	-0.01565	0.65146	0.49043	-0.43476

Figure 8

Factor Analysis for Pilot Study on Instrumentation

Identification of Factors -- Job Satisfaction

Factor 1 -- Variable 3
 Variable 5
 Variable 9

Factor 2 -- Variable 4
 Variable 10

Factor 3 -- Variable 6

Alternatively, Variables 1, 2 cross loaded upon Factors 1 and 2 and Variable 7 cross loaded upon Factors 2 and 3. Furthermore, Variable 8 did not load upon any of the factors when .4 was employed as a cut off point.

Identification of Factors -- Organizational Performance

Factor 1 -- Variable 5
 Variable 9
 Variable 10

Factor 2 -- Variable 16
 Variable 17
 Variable 18
 Variable 19

Factor 3 -- Variable 13
 Variable 14

Factor 4 -- Variable 4

Factor 5 -- Variable 6
 Variable 7

Factor 6 -- Variable 15

Alternatively Variables 2, 3, 8 cross loaded upon more than one factor. Furthermore, Variables 1, 11, 12 did not load upon any of these factors when .4 was employed as a cut off point.

APPENDIX B

Hours of Work Questionnaires

Standard Hours

Flexible Hours

Compressed Hours

HOURS OF WORK
EVALUATION QUESTIONNAIRE
STANDARD HOURS GROUP

HOURS OF WORK AND STRUCTURE OF WORK WEEK

EVALUATION QUESTIONNAIRE

The purpose of this questionnaire is to gather information on various arrangements of the work week and working hours which are being used to measure the effectiveness of policy within the Alberta Department of Education. Your co-operation in completing the questionnaire will be very much appreciated.

Answering Procedures

1. Unless specified otherwise, write applicable number in box corresponding to each coded question. The questions are precoded for computer reading.
2. When completed send the questionnaire in the return envelope included.
3. Do not sign your name on the questionnaire. Furthermore, if you feel that any question is an invasion of your personal or family privacy, please feel free to leave that particular item blank.

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6. DO YOU HAVE SCHOOL AGE CHILDREN OR OTHER DEPENDENTS WHO REQUIRE YOUR PERSONAL ASSISTANCE BEFORE YOU ARRIVE AT WORK AND AFTER YOU DEPART FROM WORK?

Yes (1) No (2)

☐

7. NUMBER OF CHILDREN 18 YEARS OF AGE OR LESS, LIVING AT HOME.

- None (1)
One (2)
Two (3)
Three (4)
Four (5)
More than Four (6)

☐

8. INDICATE YOUR PLACE OF WORK:

- | | |
|---|--|
| Minister's Office (1) | Examinations Development (13) |
| Deputy Minister's Office (2) | Early Childhood Services (14) |
| Finance, Statistics & Legislation (3) | Administration - Educational Opportunities Fund (15) |
| School Buildings (4) | Alberta Correspondence School (16) |
| Personnel Office (5) | Alberta School for the Deaf (17) |
| Educational Services - Handicapped Children (6) | Curriculum (18) |
| Administration - Educational Services - Handicapped (7) | Audio Visual Services (19) |
| Field Services (8) | Student Evaluation & Data Processing (20) |
| Counselling & Guidance (9) | Communications (21) |
| Registrar (10) | Alberta Education Communications Authority (22) |
| Planning & Research (11) | School Book Branch (23) |
| Special Education Services (12) | |

13-14

9. EDUCATIONAL RECORD - INDICATE THE CATEGORY WHICH CONTAINS THE HIGHEST LEVEL YOU HAVE ACHIEVED.

- (1) Elementary School
(2) High School
(3) 1-2 Years Post-Secondary
(4) A Degree or Diploma Program (Non-University)
(5) A Degree or Diploma Program (University)
(6) More than one Degree or Diploma Program
(7) Other (Specify) _____

10. IS YOUR SPOUSE EMPLOYED:

- (1) Full-time
(2) Part-time
(3) Not Employed
(4) Not Married

15

11. WHICH OF THE FOLLOWING BEST DESCRIBES YOUR PERIOD OF EMPLOYMENT WITHIN THIS BRANCH OF THE EDUCATION DEPARTMENT.

- (1) Less than 6 months
(2) 6 - 12 months
(3) 13 - 24 months
(4) 25 - 36 months
(5) 37 - 48 months
(6) More than 48 months

17

☐
☐

SECTION 8 - YOUR TRAVEL AND PARKING ARRANGEMENTS		OFFICIAL USE ONLY
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12. YOUR USUAL MODE OF TRAVEL TO AND FROM WORK:		
Walk (1)		
Bus (2)		
Car (Driver) (3)		
Car (Passenger) (4)		
Bicycle or Motorcycle (5)		
Taxi (6)		
Other (7)		
13. IF YOU ARE INVOLVED IN EXPERIMENTS IN THE ALLOCATION OF TIME SUCH AS FLEXIBLE WORKING HOURS OR COMPRESSED WORK WEEK, HAS YOUR USUAL MODE OF TRAVEL TO AND FROM WORK CHANGED?		
Yes (1)	No (2)	Not involved in innovations (3)
14. IF YOUR ANSWER TO THE ABOVE QUESTION IS YES, WHICH OF THE MODES OF TRAVEL OUTLINED IN QUESTION 12 ABOVE DID YOU USE?		
Before the introduction of a compressed work week or flexible hours		
After the introduction of a compressed work week or flexible hours.		
15. IF YOU TRAVEL TO AND FROM WORK BY CAR, DO YOU USUALLY TRAVEL		
Alone for the whole trip (1)	In a group of 3 (3)	
In a group of 2 (2)	In a group of 4 or more (4)	
16. IF YOU TRAVEL TO WORK BY CAR IN A GROUP, ARE THE OTHER MEMBERS OF THE GROUP:		
Members of your family (1)		
Others (2)		
Both (3)		
17. IF YOU DRIVE YOUR CAR TO AND FROM WORK DO:		
A. You usually park in a lot or garage (1) On the street (2)		
B. Indicate the charge you pay per month (in dollars)		
Free (1)	or \$	per month (2)
C. Is the parking space provided by the provincial government?		
Yes (1)	No	(2)

25-27, 28

29

SECTION C - YOUR REACTION AS AN EMPLOYEE TO THE COMPRESSED WORK WEEK.						Page 4 of 11	OFFICIAL USE ONLY e/c
In this part of the questionnaire you are asked to express your satisfaction or dissatisfaction with different aspects of the standard hours program in your branch over the last 12 months.							
18. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION							
DESCRIPTION	VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED		
The over-all program in your department	(1)	(2)	(3)	(4)	(5)	30 <input type="checkbox"/>	
The way in which the program is organized	(1)	(2)	(3)	(4)	(5)	31 <input type="checkbox"/>	
The method of keeping track of the hours worked each day	(1)	(2)	(3)	(4)	(5)	32 <input type="checkbox"/>	
The freedom you have to decide when you will arrive and depart from work	(1)	(2)	(3)	(4)	(5)	33 <input type="checkbox"/>	
The way your immediate supervisor is administering the program	(1)	(2)	(3)	(4)	(5)	34 <input type="checkbox"/>	
The arrangements you have for travel to and from work	(1)	(2)	(3)	(4)	(5)	35 <input type="checkbox"/>	
Your utilization of the service provided by the bus system	(1)	(2)	(3)	(4)	(5)	36 <input type="checkbox"/>	
Changes which have occurred in the way work is done	(1)	(2)	(3)	(4)	(5)	37 <input type="checkbox"/>	
The way you now organize and complete your work	(1)	(2)	(3)	(4)	(5)	38 <input type="checkbox"/>	
Freedom to handle personal business during the workday	(1)	(2)	(3)	(4)	(5)	39 <input type="checkbox"/>	

19. FOR EACH OF FOLLOWING, FIRST INDICATE THE KIND OF CHANGE YOU FEEL WHICH HAS OCCURRED IN THE LAST 12 MONTHS IN YOUR BRANCH.
SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	CHANGE HAS OF MAJOR IMPORTANCE	NO CHANGE IN IMPORTANCE	CHANGE HAS OF MINOR IMPORTANCE	
Travel to and from work	(1)	(2)	(3)	(1)	(2)	(3)	55
Organization of your work	(1)	(2)	(3)	(1)	(2)	(3)	56
Availability of office equipment	(1)	(2)	(3)	(1)	(2)	(3)	57
Your over-all work performance	(1)	(2)	(3)	(1)	(2)	(3)	58
Availability of people with whom you must work	(1)	(2)	(3)	(1)	(2)	(3)	59
Degree of participation in decisions about work assignments	(1)	(2)	(3)	(1)	(2)	(3)	60
Degree of difficulty in scheduling work requiring others	(1)	(2)	(3)	(1)	(2)	(3)	61
Quality of communication about work assignments	(1)	(2)	(3)	(1)	(2)	(3)	62
Ability to arrange meetings with others when necessary	(1)	(2)	(3)	(1)	(2)	(3)	63
Availability of others for "spur of the moment" discussions or phone calls	(1)	(2)	(3)	(1)	(2)	(3)	64
Desirability of respondent's Department as a place to work	(1)	(2)	(3)	(1)	(2)	(3)	65
Degree of fatigue associated with your daily work assignments	(1)	(2)	(3)	(1)	(2)	(3)	66
The service your department provides to other departments	(1)	(2)	(3)	(1)	(2)	(3)	67
The service your department provides to the public	(1)	(2)	(3)	(1)	(2)	(3)	68
The availability of services such as dining rooms, elevators and cafeteria	(1)	(2)	(3)	(1)	(2)	(3)	69

DESCRIPTION	HAS		HAS IMPROVED AS BEFORE	HAS DETERIORATED	OFFICIAL USE ONLY c/c	Page 6 of 11			OFFICIAL USE ONLY c/c		
	IMPROVED	IS SAME AS BEFORE				CHANGE WAS OF MAJOR IMPORTANCE	NO CHANGE IN IMPORTANCE	CHANGE WAS OF MINOR IMPORTANCE			
Management of your family affairs	(1)	(2)	(3)	<input type="checkbox"/>	70	<input type="checkbox"/>	(1)	(2)	(3)	74	<input type="checkbox"/>
Amount of time spent with family	(1)	(2)	(3)	<input type="checkbox"/>	71	<input type="checkbox"/>	(1)	(2)	(3)	75	<input type="checkbox"/>
Amount of time spent with friends	(1)	(2)	(3)	<input type="checkbox"/>	72	<input type="checkbox"/>	(1)	(2)	(3)	76	<input type="checkbox"/>
Time available to organize your personal business affairs	(1)	(2)	(3)	<input type="checkbox"/>	73	<input type="checkbox"/>	(1)	(2)	(3)	77	<input type="checkbox"/>

SECTION D - CHARACTERISTICS OF THE STANDARD HOURS PROGRAM IN YOUR BRANCH.

This part of the questionnaire asks you to tell what you remember learning about the characteristics of the standard hours program in your branch. You should answer the questions as quickly as you can. You should not ask anyone else about their answer to a question or questions or look up the answer in a circular. The objective of this part of the questionnaire is to reveal what employees of the branch think the characteristics of the standard hours program are. We already know what they in fact are!

When you answer questions in this and other parts of the questionnaire which require that you give the time something happens, there will be spaces for four numbers.

e.g.

You should state the time using the 24 hour clock:

8:15 a.m. would be

12:00 noon would be

3:30 p.m. would be

20. What is the STARTING time at which employees in your organizational unit may BEGIN to work?

or
Don't know (1)

70-80. 5 6 7-10 11

21. What is the STARTING time at which employees in your organizational unit may BEGIN their lunch period?

or
Don't know (1)

1 2 Card

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22. What is the LATEST time at which employees in your organizational unit may RETURN from their lunch?

or
Don't Know (1)

23. What is the minimum ALLOCATED amount of time an employee in your organizational unit must take for lunch?

- 30 (1) 60 (3)
45 (2) Don't Know (4)

24. What is the EARLIEST time at which employees in your organizational unit can leave work, excluding overtime considerations?

--

25. How do employees in your organizational unit keep track of the number of hours they work each day?

- Time recording mechanism
Paper record maintained by each employee (1) The honour system (no written records) (4)
Paper record maintained by supervisor (2) Other (explain below) (5)
(3)

26. How often do employees in your organizational unit report attendance at work?

- Daily (1) Monthly (3)
Weekly (2) Don't Know (4)

27. Are employees in your organizational unit permitted to have paid time off during working hours to deal with personal matters such as Doctor, Lawyer, Dentist, etc.?

- Yes (1) No (2)

28. Are employees in your organizational unit permitted to arrive late without a penalty?

- Yes (1) No (2)

29. Are employees in your organizational unit permitted to accumulate hours of work in one month (or period) so that they can work reduced hours in the following month (or period)?

- Yes (1) No (2)

If your answer to the above question is yes, what is the maximum amount of hours that may be banked in a given month?

- 5 hours (1) 15 hours (3)
10 hours (2) More than 15 hours (4)
Don't Know (5)

28

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30. Does your organizational unit have summer-winter hours of work arrangements such as Daylight Saving?

Yes (1) No (2) Don't Know (3)

☐

29

31. From your own point of view, is there still an advantage of having summer-winter hours of work arrangements when there is a compressed work week program?

Yes (1) No (2) Don't Know (3)

☐

30

SECTION E YOUR OWN HOURS OF WORK

In this part of the questionnaire you are asked to explain the changes you have made in your own hours of work over the last 12 months.

32. How do you select the hours which you would work under the standard hours system in your organizational unit?

- By yourself (1)
 In consultation with your supervisor (2)
 The selection is made by your supervisor alone (3)

☐

31

33. Your usual time of DEPARTURE from home:

was 12 months ago

☐

32-35

is now

☐

36-39

34. Your usual time of ARRIVAL at work:

was 12 months ago

☐

40-43

is now

☐

44-47

35. Your usual time for STARTING your lunch period:

was 12 months ago

☐

48-51

is now

☐

52-55

36. Your usual time of ENDING your lunch period:

was 12 months ago

☐

56-59

is now

☐

60-63

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37. Your usual time of DEPARTURE from work:

was 12 months ago

--	--	--	--

64-67

is now

--	--	--	--

68-71

38. Your usual time of ARRIVAL at home after work:

was 12 months ago

--	--	--	--

72-75

is now

--	--	--	--

76-79

39. In general, how many times were you late for work 12 months ago?

- Never (1)
1 - 5 times a month (2)
Over 5 times a month (3)

--

80

40. How many times were you late for work over the last 6 months?

- Never (1)
1 - 5 times a month (2)
Over 6 times a month (3)

--

5

--	--	--	--	--	--

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SECTION F EFFECTS ON LEISURE ACTIVITIES

c/c

A1. Below is a checklist of freetime activities. First, place a (1) for every activity in which you participated during the standard hours 5 day workweek 12 months ago in the left hand column.

Secondly, circle the number that best represents your participation in these activities over the last 6 months in the right hand columns. N.B. If you have started a NEW activity in the last 6 months circle 3 in the right hand columns.

Standard hours over the last 6 months

5 day week with
standard hours
12 months agoIncreased Particip-
ationSame Partic-
ipationDecreased Particip-
ation

6

Work around the house

☐☐☐☐

23

7

Spend time with family

☐☐☐☐

24

8

Travel

☐☐☐☐

25

9

Go to ballgames, flights, hockey games, etc.

☐☐☐☐

26

10

Fishing and hunting

☐☐☐☐

27

11

Other hobbies

☐☐☐☐

28

12

Engage in some form of athletics (bowling, golf, baseball, etc.)

☐☐☐☐

29

13

Read more

☐☐☐☐

30

14

Go back to school or learn a trade

☐☐☐☐

31

15

Active in school boards, P.T.A., Boy Scouts, etc.

☐☐☐☐

32

16

Got another part-time job

☐☐☐☐

33

17

Joined social club

☐☐☐☐

34

18

Engaged in political action work

☐☐☐☐

35

19

Rest, relax, loaf, etc.

☐☐☐☐

36

20

Swimming, boating

☐☐☐☐

37

21

Work on car

☐☐☐☐

38

22

Church activities

☐☐☐☐

39

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5 day week with standard hours 12 months ago		Standard hours over the last 6 months			OFFICIAL USE ONLY
		Increased Participation	Same Participation	Decreased Participation	c/c
40	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	45
41	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	46
42	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	47
43	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48
44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	49

SECTION 6 REACTIONS TO INNOVATIONS IN THE MANAGEMENT OF TIME		
You are probably aware of recent experiments in the allocation of time such as flexitime and the compressed work week.		
42. Would you like your branch to adopt one of the innovations in the management of time?	Yes (1)	No (2)
	<input type="checkbox"/>	<input type="checkbox"/>
43. If your answer to the above question is YES which innovation do you favour?		
Compressed Work Week (1)	Flexitime (2)	
	<input type="checkbox"/>	<input type="checkbox"/>
	50	51

44. If your answer to question 42 is YES outline your reasons supporting the adoption of a compressed work week or flextime in your branch.

45. If your answer to question 42 is NO outline your reasons for maintaining a standard hour (5 day, 37 1/2 hours) program in your branch.

THANK YOU FOR YOUR CO-OPERATION

HOURS OF WORK
EVALUATION QUESTIONNAIRE
FLEXITIME-GROUP.

HOURS OF WORK AND STRUCTURE OF WORK WEEK

EVALUATION QUESTIONNAIRE

The purpose of this questionnaire is to gather information on various arrangements of the work week and working hours which are being used to measure the effectiveness of policy within the Alberta Department of Education. Your co-operation in completing the questionnaire will be very much appreciated.

Answering Procedures

1. Unless specified otherwise, write applicable number in box corresponding to each coded question. The questions are preceded for computer reading.
2. When completed send the questionnaire in the return envelope included.
3. Do not sign your name on the questionnaire. Furthermore, if you feel that any question is an invasion of your personal or family privacy, please feel free to leave that particular item blank.

ALBERTA DEPARTMENT
OF EDUCATION

HOURS OF WORK EVALUATION QUESTIONNAIRE

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SECTION A - PERSONAL DATA

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In this part of the questionnaire you are asked to give personal information about yourself. This information is required to permit examination of the extent to which employees with similar characteristics have similar experiences with flexible hours. Because you are giving personal information you should NOT identify yourself in the questionnaire so that your contribution will be anonymous.

1. AGE (LAST BIRTHDAY):
under 20 (1)
20 to 29 (2)
30 to 39 (3)
40 to 49 (4)
50 to 59 (5)
60 and over (6)

2. SEX:
Female (1)
Male (2)

3. THE OCCUPATIONAL CATEGORY OF YOUR POSITION IS:

Management

- Executive Officer I (1)
- Executive Officer II (2)
- Senior Officer I (3)
- Senior Officer II (4)

Non-Management

- Administrative and Clerical Support Services (Div. 1) (5)
- Administrative and Program Support Services (Div. 2) (6)
- Trade and Related Services (Div. 4) (7)
- Social Services Division (Div. 6) (8)
- Institutional and Patient Support Services (Div. 7) (9)
- Educational Services (Div. 8) (10)
- Health and Therapy Support Services (Div. 9) (11)
- Medical and Rehabilitative Services (Div. 10) (12)
- General and Field Support (Div. 11) (13)
- Technical Services Bargaining Division (Div. 12) (14)
- Other (Specify) (15)

NOTE: If you are unsure of which Division you belong to please check with your supervisor.

4. YOUR SALARY IS:
Under \$5,000 (1)
\$5,000 to 9,999 (2)
\$10,000 to 14,999 (3)
\$15,000 to 19,999 (4)
\$20,000 to 24,999 (5)
\$25,000 to 30,000 (6)
\$30,000 and over (7)

5. MARITAL STATUS:

- Single (1)
- Married (2)
- Other (3)

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6. DO YOU HAVE SCHOOL AGE CHILDREN OR OTHER DEPENDENTS WHO REQUIRE YOUR PERSONAL ASSISTANCE BEFORE YOU ARRIVE AT WORK AND AFTER YOU DEPART FROM WORK?

Yes (1) No (2)

7. NUMBER OF CHILDREN 18 YEARS OF AGE OR LESS, LIVING AT HOME.

None (1)
One (2)
Two (3)
Three (4)
Four (5)
More than four (6)

8. INDICATE YOUR PLACE OF WORK:

Minister's Office (1)	Examinations Development (13)
Deputy Minister's Office (2)	Early Childhood Services (14)
Finance, Statistics & Legislation (3)	Administration - Educational Opportunities Fund (15)
School Buildings (4)	Alberta Correspondence School (16)
Personnel Office (5)	Alberta School for the Deaf (17)
Educational Services - Handicapped Children (6)	Curriculum (18)
Administration - Educational Services - Handicapped (7)	Audio Visual Services (19)
Field Services (8)	Student Evaluation & Data Processing (20)
Counselling & Guidance (9)	Communications (21)
Registrar (10)	Alberta Education Communications Authority (22)
Planning & Research (11)	School Book Branch (23)
Special Education Services (12)	

9. EDUCATIONAL RECORD - INDICATE THE CATEGORY WHICH CONTAINS THE HIGHEST LEVEL YOU HAVE ACHIEVED.

Elementary School (1)
High School (2)
1-2 Years Post-Secondary (3)
A Degree or Diploma Program (Non-University) (4)
A Degree or Diploma Program (University) (5)
More than one Degree or Diploma Program (6)
Other (Specify) (7)

10. IS YOUR SPOUSE EMPLOYED:

Full-time (1) Not Married (4)
Part-time (2)
Not Employed (3)

11. WHICH OF THE FOLLOWING BEST DESCRIBES YOUR PERIOD OF EMPLOYMENT WITHIN THIS BRANCH OF THE EDUCATION DEPARTMENT.

Less than 6 months (1)	25 - 36 months (4)
6 - 12 months (2)	37 - 48 months (5)
13 - 24 months (3)	More than 48 months (6)

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SECTION 8 - YOUR TRAVEL AND PARKING ARRANGEMENTS

12. YOUR USUAL MODE OF TRAVEL TO AND FROM WORK:

- Walk (1)
 Bus (2)
 Car (Driver) (3)
 Car (Passenger) (4)
 Bicycle or Motorcycle (5)
 Taxi (6)
 Other (7)

13. IF YOU ARE INVOLVED IN EXPERIMENTS IN THE ALLOCATION OF TIME SUCH AS FLEXIBLE WORKING HOURS OR COMPRESSED WORK WEEK, HAS YOUR USUAL MODE OF TRAVEL TO AND FROM WORK CHANGED?

- Yes (1) No (2) Not involved in innovations (3)

14. IF YOUR ANSWER TO THE ABOVE QUESTION IS YES, WHICH OF THE MODES OF TRAVEL OUTLINED IN QUESTION 12 ABOVE DID YOU USE?

Before the introduction of a compressed work

week or flexible hours

 After the introduction of a compressed work week
 or flexible hours.

15. IF YOU TRAVEL TO AND FROM WORK BY CAR, DO YOU USUALLY TRAVEL

- Alone for the whole trip (1) In a group of 3 (3)
 In a group of 2 (2) In a group of 4 or more (4)

16. IF YOU TRAVEL TO WORK BY CAR IN A GROUP, ARE THE OTHER MEMBERS OF THE GROUP:

- Members of your family (1)
 Others (2)
 Both (3)

17. IF YOU DRIVE YOUR CAR TO AND FROM WORK DO:

- A. You usually park in a lot or garage (1) On the street (2)
 B. Indicate the charge you pay per month (in dollars)
 Free (1) or \$ per month (2)
 C. Is the parking space provided by the provincial government?
 Yes (1) No (2)

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SECTION C - YOUR REACTION AS AN EMPLOYEE TO FLEXIBLE HOURS

In this part of the questionnaire you are asked to express your satisfaction or dissatisfaction with different aspects of the flexible hours program in your branch. You are asked, as well, to identify the kinds of change in a number of things since the introduction of the flexible hours program in your branch.

18. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION

DESCRIPTION	VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED	
The over-all program in your department	(1)	(2)	(3)	(4)	(5)	30
The way in which the program is organized	(1)	(2)	(3)	(4)	(5)	31
The method of keeping track of the hours worked each day	(1)	(2)	(3)	(4)	(5)	32
The freedom you have to decide when you will arrive and depart from work	(1)	(2)	(3)	(4)	(5)	33
The way your immediate supervisor is administering the program	(1)	(2)	(3)	(4)	(5)	34
The arrangements you have for travel to and from work	(1)	(2)	(3)	(4)	(5)	35
Your utilization of the service provided by the bus system	(1)	(2)	(3)	(4)	(5)	36
Changes which have occurred in the way work is done	(1)	(2)	(3)	(4)	(5)	37
The way you now organize and complete your work	(1)	(2)	(3)	(4)	(5)	38
Freedom to handle personal business during the workday	(1)	(2)	(3)	(4)	(5)	39

Page 6 of 11				OFFICIAL USE ONLY
DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	e/c
Management of your family affairs	(1)	(2)	(3)	70
Amount of time spent with family	(1)	(2)	(3)	71
Amount of time spent with friends	(1)	(2)	(3)	72
Time available to organize your personal business affairs	(1)	(2)	(3)	73
				74
				75
				76
				77

SECTION D - CHARACTERISTICS OF THE FLEXIBLE HOURS PROGRAM IN YOUR BRANCH.

This part of the questionnaire asks you to tell what you remember learning about the characteristics of the flexible hours program in your branch. You should answer the questions as quickly as you can. You should not ask anyone else about their answer to a question or questions or look up the answer in a circular. The objective of this part of the questionnaire is to reveal what employees of the branch think the characteristics of the flexible hours program are. We already know what they in fact are!

When you answer questions in this and other parts of the questionnaire which require that you give the time something happens, there will be spaces for four numbers.

e.g.

You should state the time using the 24 hour clocks

8:15 a.m. would be

12:00 noon would be

3:30 p.m. would be

20. What is the STARTING time at which employees in your organizational unit may BEGIN to work?
- or
- Don't know (1)
21. What is the STARTING time at which employees in your organizational unit may BEGIN their lunch period?
- or
- Don't know (1)
22. What is the EARLIEST time at which employees in your organizational unit may BEGIN their lunch period?
- or
- Don't know (1)

78-80.	5	6	7-10	11	12-15	16
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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19. FOR EACH OF FOLLOWING, FIRST INDICATE THE KIND OF CHANGE YOU FEEL WHICH HAS OCCURRED SINCE THE INTRODUCTION OF FLEXIBLE HOURS IN YOUR BUREAU.
SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	CHANGE WAS OF MAJOR IMPORTANCE	NO CHANGE IN IMPORTANCE	CHANGE WAS OF MINOR IMPORTANCE	
Travel to and from work	(1)	(2)	(3)	(1)	(2)	(3)	55
Organization of your work	(1)	(2)	(3)	(1)	(2)	(3)	56
Availability of office equipment	(1)	(2)	(3)	(1)	(2)	(3)	57
Your over-all work performance	(1)	(2)	(3)	(1)	(2)	(3)	58
Availability of people with whom you must work	(1)	(2)	(3)	(1)	(2)	(3)	59
Degree of participation in decisions about work assignments	(1)	(2)	(3)	(1)	(2)	(3)	60
Degree of difficulty in scheduling work requiring others	(1)	(2)	(3)	(1)	(2)	(3)	61
Quality of communication about work assignments	(1)	(2)	(3)	(1)	(2)	(3)	62
Ability to arrange meetings with others when necessary	(1)	(2)	(3)	(1)	(2)	(3)	63
Availability of others for 'spur of the moment' discussions or phone calls	(1)	(2)	(3)	(1)	(2)	(3)	64
Desirability of respondent's Department as a place to work	(1)	(2)	(3)	(1)	(2)	(3)	65
Degree of fatigue associated with your daily work assignments	(1)	(2)	(3)	(1)	(2)	(3)	66
The service your department provides to other departments	(1)	(2)	(3)	(1)	(2)	(3)	67
The service your department provides to the public	(1)	(2)	(3)	(1)	(2)	(3)	68
The availability of services such as dining rooms, elevators and cafeteria	(1)	(2)	(3)	(1)	(2)	(3)	69

23. What is the LATEST time at which employees in your organizational unit may RETURN from their lunch?					17-20
or					
Don't Know (1)					21
24. What is the MINIMUM amount of time an employee in your organizational unit must take for lunch?					22
30 (1)	60 (3)				
45 (2)	Don't Know (4)				
25. What is the MAXIMUM amount of time an employee in your organizational unit is permitted to take for lunch?					23
30 (1)	75 (4)	Don't Know (7)			
45 (2)	90 (5)				
60 (3)	120 (6)				
26. What is the EARLIEST time at which employees in your organizational unit can leave work, excluding overtime considerations?					24-27
or					
Don't Know (1)					28
27. Without prior consultation with their supervisor, are employees in your organizational unit permitted to change their time of arrival and departure, the time at which they begin their lunch period, or the length of their lunch period?					29
Yes (1)	No (2)	Don't Know (3)			
None (1)	1 week (3)	Don't Know (5)			30
1 day (2)	1 month (4)				
29. How do employees in your organizational unit keep track of the number of hours they work each day?					31
Time recording mechanism (1)	The honour system (no written records) (4)				
Paper record maintained by each employee (2)	Other (explain below) (5)				
Paper record maintained by supervisor (3)					
30. How often do employees in your organizational unit report attendance at work?					32
Daily (1)	Monthly (3)				
Weekly (2)	Don't Know (4)				
31. Are employees in your organizational unit permitted to have paid time off during working hours to deal with personal matters such as Doctors, lawyers, dentists, etc.?					33
Yes (1)	No (2)	Don't Know (3)			
32. Are employees in your organizational unit permitted to arrive late during core hours without a penalty?					34
Yes (1)	No (2)	Don't Know (3)			

33. Are employees in your organizational unit permitted to accumulate hours of work in one month (or period) so that they can work reduced hours in the following month (or period)?

Yes (1) No (2)

☐

35

If your answer to the above question is yes, what is the maximum amount of hours that may be banked in a given month?

5 hours (1) More than 15 hours (4)

10 hours (2) Don't know (5)

15 hours (3)

☐

36

34. Does your organizational unit have summer-winter hours of work arrangements such as Daylight Saving?

Yes (1) No (2) Don't know (3)

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37

35. From your own point of view, is there still an advantage of having summer-winter hours of work arrangements when there is a flexible hours program?

Yes (1) No (2) Don't know (3)

☐

38

SECTION E YOUR OWN HOURS OF WORK

In this part of the questionnaire you are asked to explain the changes you have made in your own hours of work since the introduction of the flexible hours program in your branch. The objective is to discover what kinds of changes have been made and the extent of them.

36. How do you select the hours which you would work under the flexible hours system in your organizational unit?

By yourself (1)

In consultation with your supervisor (2)

The selection is made by your supervisor alone (3)

☐

39

37. Since you started flexible working hours, how many times have you changed your morning start time, the length of your lunch period or the start of your lunch period?

Never (1) One or more times (2)

☐

40

38. Why do you change the time you START work in the morning?

To improve travel to work (1)

To accommodate changes in personal or family needs (2)

To accommodate the work situation (3)

Because you are required to do so by your supervisor (4)

No change (5)

☐

41

39. Why do you change the time you BEGIN your lunch period or the length of your lunch period?

To satisfy personal needs (1)

To be able to leave work earlier in the evening (2)

To accommodate the work situation (3)

Because you are required to do so by your supervisor (4)

No change (5)

☐

42

40. Your usual time of DEPARTURE from home:

was before flexible hours

is now

41. Your usual time of ARRIVAL at work:

was before flexible hours

is now

42. Your usual time for STARTING your lunch period:

was before flexible hours

is now

43. Your usual time of ENDING your lunch period:

was before flexible hours

is now

44. Your usual time of DEPARTURE from work:

was before flexible hours

is now

45. Your usual time of ARRIVAL at home after work:

was before flexible hours

is now

46. In general, how many times were you late for work before the flexible hours program was introduced?

Never (1) Over 5 times a month (3)

1 - 5 times a month (2)

47. Since the flexible hours program was introduced, does your organizational unit have such a flexible arrangement that no matter when you arrive at work you are not considered to be late?

Yes (1) Don't know (3)

No (2)

48. If the answer to the above question is No, how many times were you late for work since the flexible hours program was introduced?

Never (1) Over 6 times a month (3)

1-5 times a month (2)

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SECTION F EFFECTS ON LEISURE ACTIVITIES

49. Below is a checklist of freetime activities. First, place a (1) for every activity in which you participated during the flexible hours 5 day workweek 12 months ago in the left hand column.

Secondly, circle the number that best represents your participation in these activities over the last 6 months in the right hand columns. N.B. If you have started a NEW activity in the last 6 months circle a 3 in the right hand columns.

Before flexible
5 day week with
standard hours

Since introduction of flexitime

Increased
Particip-
ation

Same
Particip-
ation

Decreased
Particip-
ation

18	<input type="checkbox"/>	Work around the house	3	2	1	35
19	<input type="checkbox"/>	Spend time with family	3	2	1	36
20	<input type="checkbox"/>	Travel	3	2	1	37
21	<input type="checkbox"/>	Go to ballgames, fights, hockey games, etc.	3	2	1	38
22	<input type="checkbox"/>	Fishing and hunting	3	2	1	39
23	<input type="checkbox"/>	Other hobbies	3	2	1	40
24	<input type="checkbox"/>	Engage in some form of athletics (bowling, golf, baseball, etc.)	3	2	1	41
25	<input type="checkbox"/>	Read more	3	2	1	42
26	<input type="checkbox"/>	Go back to school or learn a trade	3	2	1	43
27	<input type="checkbox"/>	Active in school boards, P.T.A., Boy Scouts, etc.	3	2	1	44
28	<input type="checkbox"/>	Got another part-time job	3	2	1	45
29	<input type="checkbox"/>	Joined social club	3	2	1	46
30	<input type="checkbox"/>	Engaged in political action work	3	2	1	47
31	<input type="checkbox"/>	Rest, relax, loaf, etc.	3	2	1	48
32	<input type="checkbox"/>	Swimming, boating	3	2	1	49
33	<input type="checkbox"/>	Work on car	3	2	1	50
34	<input type="checkbox"/>	Church activities	3	2	1	51

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Since introduction of flexitime

Increased
Participation

3

Some
Participation

2

Decreased
Participation

1

Bought or buying vacation home

52

Bored with free time

53

Visit relatives

54

Watch television a lot

55

Attend movies, theatre, concerts, etc.

56

Before flexitime
5 day week with
standard hours

57

58

59

60

61

c/e

HOURS OF WORK
EVALUATION QUESTIONNAIRE
COMPRESSED WORK WEEK GROUP

HOURS OF WORK AND STRUCTURE OF WORK WEEK

EVALUATION QUESTIONNAIRE

The purpose of this questionnaire is to gather information on various arrangements of the work week and working hours which are being used to measure the effectiveness of policy within the Alberta Department of Education. Your co-operation in completing the questionnaire will be very much appreciated.

Answering Procedures

1. Unless specified otherwise, write applicable number in box corresponding to each coded question. The questions are precoded for computer reading.
2. When completed send the questionnaire in the return envelope included.
3. Do not sign your name on the questionnaire. Furthermore, if you feel that any question is an invasion of your personal or family privacy, please feel free to leave that particular item blank.

ALBERTA DEPARTMENT
OF EDUCATION

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HOURS OF WORK EVALUATION QUESTIONNAIRE

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SECTION A - PERSONAL DATA

In this part of the questionnaire you are asked to give personal information about yourself. This information is required to permit examination of the extent to which employees with similar characteristics have similar experiences with the compressed work week. Because you are giving personal information you should NOT identify yourself in the questionnaire so that your contribution will be anonymous.

1. AGE (LAST BIRTHDAY): under 20 (1) 40 to 49 (4)
 20 to 29 (2) 50 to 59 (5)
 30 to 39 (3) 60 and over (6)

2. SEX: Female (1) Male (2)

3. THE OCCUPATIONAL CATEGORY OF YOUR POSITION IS:

Management

- Executive Officer I (1)
- Executive Officer II (2)
- Senior Officer I (3)
- Senior Officer II (4)

Non-Management

- Administrative and Clerical Support Services (Div. 1) (5)
- Administrative and Program Support Services (Div. 2) (6)
- Trade and Related Services (Div. 4) (7)
- Social Services Division (Div. 6) (8)
- Institutional and Patient Support Services (Div. 7) (9)
- Educational Services (Div. 8) (10)
- Health and Therapy Support Services (Div. 9) (11)
- Medical and Rehabilitative Services (Div. 10) (12)
- General and Field Support (Div. 11) (13)
- Technical Services Bargaining Division (Div. 12) (14)
- Other (Specify) (15)

NOTE: If you are unsure of which Division you belong to please check with your supervisor.

4. YOUR SALARY IS: Under \$5,000 (1) \$20,000 to 24,999 (5)
 \$5,000 to 9,999 (2) \$25,000 to 30,000 (6)
 \$10,000 to 14,999 (3) \$30,000 and over (7)
 \$15,000 to 19,999 (4)

5. MARITAL STATUS: Single (1)
 Married (2)
 Other (3)

5

6

7-8

9

10

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6. DO YOU HAVE SCHOOL AGE CHILDREN OR OTHER DEPENDENTS WHO REQUIRE YOUR PERSONAL ASSISTANCE BEFORE YOU ARRIVE AT WORK AND AFTER YOU DEPART FROM WORK?

Yes (1)

No

(2)

☐

11

7. NUMBER OF CHILDREN 18 YEARS OF AGE OR LESS, LIVING AT HOME.

None

(1)

One

(2)

Two

(3)

Three

(4)

Four

(5)

More than Four

(6)

☐

12

8. INDICATE YOUR PLACE OF WORK:

Minister's Office

(1)

Deputy Minister's Office

(2)

Finance, Statistics & Legislation

(3)

School Buildings

(4)

Personnel Office

(5)

Educational Services -

(6)

Handicapped Children

(7)

Administration - Educational

(8)

Services - Handicapped

(9)

Field Services

(10)

Counselling & Guidance

(11)

Registrar

(12)

Planning & Research

(13)

Special Education Services

(14)

Examinations Development

(15)

Early Childhood Services

(16)

Administration - Educational

(17)

Opportunities Fund

(18)

Alberta Correspondence School

(19)

Alberta School for the Deaf

(20)

Curriculum

(21)

Audio Visual Services

(22)

Student Evaluation & Data

(23)

Processing

(24)

Communications

(25)

Alberta Education Communications

(26)

Authority

(27)

School Book Branch

(28)

☐

13-14

9. EDUCATIONAL RECORD - INDICATE THE CATEGORY WHICH CONTAINS THE HIGHEST LEVEL YOU HAVE ACHIEVED.

Elementary School

(1)

High School

(2)

1-2 Years Post-Secondary

(3)

A Degree or Diploma Program (Non-University)

(4)

A Degree or Diploma Program (University)

(5)

More than one Degree or Diploma Program

(6)

Other (Specify)

(7)

(1)

(2)

(3)

(4)

(5)

(6)

(7)

10. IS YOUR SPOUSE EMPLOYED?

Full-time

(1)

Part-time

(2)

Not Employed

(3)

Not Married

(4)

(4)

(5)

(5)

(6)

(6)

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SECTION B - YOUR TRAVEL AND PARKING ARRANGEMENTS

12. YOUR USUAL MODE OF TRAVEL TO AND FROM WORK:

- Walk (1)
 Bus (2)
 Car (Driver) (3)
 Car (Passenger) (4)
 Bicycle or Motorcycle (5)
 Taxi (6)
 Other (7)

13. IF YOU ARE INVOLVED IN EXPERIMENTS IN THE ALLOCATION OF TIME SUCH AS FLEXIBLE WORKING HOURS OR COMPRESSED WORK WEEK, HAS YOUR USUAL MODE OF TRAVEL TO AND FROM WORK CHANGED?

- Yes (1) No (2) Not involved in innovations (3)

14. IF YOUR ANSWER TO THE ABOVE QUESTION IS YES, WHICH OF THE MODES OF TRAVEL OUTLINED IN QUESTION 12 ABOVE DID YOU USE?

- Before the introduction of a compressed work week or flexible hours
 After the introduction of a compressed work week or flexible hours.

15. IF YOU TRAVEL TO AND FROM WORK BY CAR, DO YOU USUALLY TRAVEL

- Alone for the whole trip (1) In a group of 3 (3)
 In a group of 2 (2) In a group of 4 or more (4)

16. IF YOU TRAVEL TO WORK BY CAR IN A GROUP, ARE THE OTHER MEMBERS OF THE GROUP:

- Members of your family (1)
 Others (2)
 Both (3)

17. IF YOU DRIVE YOUR CAR TO AND FROM WORK DO:

- A. You usually park in a lot or garage (1) On the street (2)
 B. Indicate the charge you pay per month (in dollars) or \$ per month (2)
 Free (1) or \$ per month (2)
 C. Is the parking space provided by the provincial government? (2)
 Yes (1) No

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25-27

28

Page 4 of 11						OFFICIAL USE ONLY c/c
SECTION C - YOUR REACTION AS AN EMPLOYEE TO THE COMPRESSED WORK WEEK.						
In this part of the questionnaire you are asked to express your satisfaction or dissatisfaction with different aspects of the compressed work week program in your branch. You are asked, as well, to identify the kinds of change in a number of things since the introduction of the compressed work week.						
18. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION						
DESCRIPTION	VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED	
The over-all program in your department	(1)	(2)	(3)	(4)	(5)	30
The way in which the program is organized	(1)	(2)	(3)	(4)	(5)	31
The method of keeping track of the hours worked each day	(1)	(2)	(3)	(4)	(5)	32
The freedom you have to decide when you will arrive and depart from work	(1)	(2)	(3)	(4)	(5)	33
The way your immediate supervisor is administering the program	(1)	(2)	(3)	(4)	(5)	34
The arrangements you have for travel to and from work	(1)	(2)	(3)	(4)	(5)	35
Your utilization of the service provided by the bus system	(1)	(2)	(3)	(4)	(5)	36
Changes which have occurred in the way work is done	(1)	(2)	(3)	(4)	(5)	37
The way you now organize and complete your work	(1)	(2)	(3)	(4)	(5)	38
Freedom to handle personal business during the workday	(1)	(2)	(3)	(4)	(5)	39

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19. FOR EACH OF FOLLOWING, FIRST INDICATE THE KIND OF CHANGE YOU FEEL WHICH HAS OCCURRED SINCE THE INTRODUCTION OF THE COMPRESSED WORK WEEK. SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	CHANGE WAS OF MAJOR IMPORTANCE	NO CHANGE IN IMPORTANCE	CHANGE WAS OF MINOR IMPORTANCE	
Travel to and from work	(1)	(2)	(3)	(1)	(2)	(3)	55
Organization of your work	(1)	(2)	(3)	(1)	(2)	(3)	56
Availability of office equipment	(1)	(2)	(3)	(1)	(2)	(3)	57
Your over-all work performance	(1)	(2)	(3)	(1)	(2)	(3)	58
Availability of people with whom you must work	(1)	(2)	(3)	(1)	(2)	(3)	59
Degree of participation in decisions about work assignments	(1)	(2)	(3)	(1)	(2)	(3)	60
Degree of difficulty in scheduling work requiring others	(1)	(2)	(3)	(1)	(2)	(3)	61
Quality of communication about work assignments	(1)	(2)	(3)	(1)	(2)	(3)	62
Ability to arrange meetings with others when necessary	(1)	(2)	(3)	(1)	(2)	(3)	63
Availability of others for 'spur of the moment' discussions or phone calls	(1)	(2)	(3)	(1)	(2)	(3)	64
Desirability of respondent's Department as a place to work	(1)	(2)	(3)	(1)	(2)	(3)	65
Degree of fatigue associated with your daily work assignments	(1)	(2)	(3)	(1)	(2)	(3)	66
The service your department provides to other departments	(1)	(2)	(3)	(1)	(2)	(3)	67
The service your department provides to the public	(1)	(2)	(3)	(1)	(2)	(3)	68
The availability of services such as dining room, elevator and cafeteria	(1)	(2)	(3)	(1)	(2)	(3)	69

Page 6 of 11				OFFICIAL USE ONLY c/c			
DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	CHANGE WAS OF MAJOR IMPORTANCE	NO CHANGE IN IMPORTANCE	CHANGE WAS OF MINOR IMPORTANCE	OFFICIAL USE ONLY c/c
Management of your family affairs	(1)	(2)	(3)	(1)	(2)	(3)	74
Amount of time spent with family	(1)	(2)	(3)	(1)	(2)	(3)	75
Amount of time spent with friends	(1)	(2)	(3)	(1)	(2)	(3)	76
Time available to organize your personal business affairs	(1)	(2)	(3)	(1)	(2)	(3)	77

SECTION D - CHARACTERISTICS OF THE COMPRESSED WORK WEEK PROGRAM IN YOUR BRANCH.

This part of the questionnaire asks you to tell what you remember learning about the characteristics of the compressed work week program in your branch. You should answer the questions as quickly as you can. You should not ask anyone else about their answer to a question or questions or look up the answer in a circular. The objective of this part of the questionnaire is to reveal what employees of the branch think the characteristics of the compressed work week program are. We already know what they do, fact are!

When you answer questions in this and other parts of the questionnaire which require that you give the time something happens, there will be spaces for four numbers.

e.g.

--	--	--	--

You should state the time using the 24 hour clock:

8:15 a.m. would be

0	8	1	5
---	---	---	---

12:00 noon would be

1	2	0	0
---	---	---	---

3:30 p.m. would be

1	5	3	0
---	---	---	---

20. What is the STARTING time at which employees in your organizational unit may BEGIN to work?

or

Don't know (1)

78-80.

--	--	--	--

21. What is the STARTING time at which employees in your organizational unit may BEGIN their lunch period?

or

Don't know (1)

7-10

--	--	--	--

11

--	--	--	--

22. What is the LATEST time at which employees in your organizational unit may RETURN from their lunch?

--	--	--	--	--	--

12-15

or

--	--	--	--	--	--

16

Don't Know (1)

23. What is the minimum ALLOCATED amount of time an employee in your organizational unit must take for lunch?

30 (1) 60 (3)

45 (2) Don't Know (4)

24. What is the EARLIEST time at which employees in your organizational unit can leave work, excluding overtime considerations?

--	--	--	--	--	--

18-21

or

--	--	--	--	--	--

22

Don't Know (1)

25. How do employees in your organizational unit keep track of the number of hours they work each day?

Time recording mechanism (1) The honour system (no written records) (4)
 Paper record maintained by each employee (2) Other (explain below) (5)
 Paper record maintained by supervisor (3)

23

26. How often do employees in your organizational unit report attendance at work?

Daily (1) Monthly (3)

Weekly (2) Don't Know (4)

24

27. Are employees in your organizational unit permitted to have paid time off during working hours to deal with personal matters such as Doctor, Lawyer, Dentist, etc.?

Yes (1) No (2) Don't Know (3)

25

28. Are employees in your organizational unit permitted to arrive late without a penalty?

Yes (1) No (2) Don't Know (3)

26

29. Are employees in your organizational unit permitted to accumulate hours of work in one month (or period) so that they can work reduced hours in the following month (or period)?

Yes (1) No (2)

27

If your answer to the above question is yes, what is the maximum amount of hours that may be banked in a given month?

5 hours (1) 15 hours (3) Don't Know (5)

10 hours (2) More than 15 hours (4)

28

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c/c30. Does your organizational unit have summer-winter hours of work arrangements such as Daylight Savings? ☐

Yes (1) No (2) Don't Know (3)

31. From your own point of view, is there still an advantage of having summer-winter hours of work arrangements when there is a compressed work week program? ☐

Yes (1) No (2) Don't Know (3)

SECTION E YOUR OWN HOURS OF WORK

In this part of the questionnaire you are asked to explain the changes you have made in your own hours of work since the introduction of the compressed work week program in your branch. The objective is to discover what kinds of changes have been made and the extent of them.

32. How do you select the hours which you would work under the compressed work week in your organizational unit?

By yourself (1)

In consultation with your supervisor (2)

The selection is made by your supervisor alone (3)

33. Your usual time of DEPARTURE from home: ☐was before the compressed work week

is now

34. Your usual time of ARRIVAL at work: ☐was before the compressed work week

is now

35. Your usual time for STARTING your lunch period: ☐was before the compressed work week

is now

36. Your usual time of ENDING your lunch period: ☐was before the compressed work week

is now

29

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31

32-35

36-39

40-43

44-47

48-51

52-55

56-59

60-63

Page 5 of 11

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37. Your usual time of DEPARTURE from work:

was before the compressed work week

Is now

38. Your usual time of ARRIVAL at home after work:

was before the compressed work week

Is now

39. In general, how many times were you late for work before the compressed work week program was introduced?

Never (1)

1 - 5 times a month (2)

Over 5 times a month (3)

40. How many times were you late for work since the compressed work week program was introduced?

Never (1)

1 - 5 times a month (2)

Over 6 times a month (3)

SECTION F EFFECTS ON SPENDING HABITS AND FAMILY LIFE

41. Since you have been working on a compressed work week, has there been any changes in your consumption spending habits?

Spend more than I did on a 5 day week (1)

Spend same amount as I did on a 5 day week (2)

Spend less than I did on a 5 day week (3)

42. Are there any items you purchase now, that you did not purchase when you worked a standard hours 5 day week?

Yes

(1)

No

(2)

If your answer to the above question is YES, please specify details below

I.D. Card

43. Since you have been working on a compressed work week, who looks after your children after school hours, before you return home from work?

- Spouse (1)
 Paid Babysitter (2)
 Voluntary Babysitter (friends) (3)
 Creche (4)
 Other (Specify) _____ (5)
 No children (6)

☐

44. Have these added family responsibilities concerning childminding created a problem for you?

- Yes (1) No (2) No children (3)

If your answer to the above question is YES please give details on the nature and severity of the problem.

☐

OFFICIAL USE ONLY		Page 11 of 11			
SECTION C EFFECTS ON LEISURE ACTIVITIES		c/c			
45.	Below is a checklist of freetime activities. First, place a (1) for every activity in which you participated during the standard hours 5 day workweek 12 months ago in the left hand column. Secondly, circle the number that best represents your participation in these activities since the introduction of the compressed work week in the right hand columns. N.B. If you have started a NEW activity since the introduction of the CW circle 3 in the right hand columns. Before the CW 5 day week with standard hours	Since Introduction of the CW			
10	<input type="checkbox"/>	Work around the house	Increased Participation 3	Decreased Participation 1	27
11	<input type="checkbox"/>	Spend time with family	3	2	28
12	<input type="checkbox"/>	Travel	3	2	29
13	<input type="checkbox"/>	Go to ballgames, fights, hockey games, etc.	3	2	30
14	<input type="checkbox"/>	Fishing and hunting	3	2	31
15	<input type="checkbox"/>	Other hobbies	3	2	32
16	<input type="checkbox"/>	Engage in some form of athletics (bowling, golf, baseball, etc.)	3	2	33
17	<input type="checkbox"/>	Read more	3	2	34
18	<input type="checkbox"/>	Go back to school or learn a trade	3	2	35
19	<input type="checkbox"/>	Active in school boards, P.T.A., Boy Scouts, etc.	3	2	36
20	<input type="checkbox"/>	Got another part-time job	3	2	37
21	<input type="checkbox"/>	Joined social club	3	2	38
22	<input type="checkbox"/>	Engaged in political action work	3	2	39
23	<input type="checkbox"/>	Rest, relax, loaf, etc.	3	2	40
24	<input type="checkbox"/>	Swimming, boating	3	2	41
25	<input type="checkbox"/>	Work on car	3	2	42
26	<input type="checkbox"/>	Church activities	3	2	43

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44	Before the CW 5 day week with standard hours	Since introduction of the NW	
45	<input type="checkbox"/>	Increased Particip- ation	Decreased Particip- ation
46	<input type="checkbox"/>	3	2
47	<input type="checkbox"/>	3	1
48	<input type="checkbox"/>	3	1
49	<input type="checkbox"/>	3	1
50	<input type="checkbox"/>	3	1
51	<input type="checkbox"/>	3	1
52	<input type="checkbox"/>	3	1
53	<input type="checkbox"/>	3	1

Bought or buying vacation home

Spent with free time

Visit relatives

Watch television a lot

Attend movies, theatre, concerts, etc.

APPENDIX C

Hours of Work Interview Schedule

Flexible Hours

Compressed Hours

INTERVIEW SCHEDULE

MANAGEMENT-FLEXITIME

INTERVIEW SCHEDULE

FLEXITIME GROUP

SECTION A FOR SUPERVISORS' AND MANAGERS' COMPLETION ONLY

1	2	3	4	5
---	---	---	---	---

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In this part of the study, the objective is to learn what supervisors and managers feel about different aspects of the flexible hours program.

1. HOW MANY EMPLOYEES DO YOU SUPERVISE/MANAGE DIRECTLY OR INDIRECTLY IN YOUR ORGANIZATIONAL UNIT?

- | | | | | | |
|---------|-----|--------------|-----|------------|-----|
| 1 - 10 | (1) | 21 - 50 | (3) | Don't Know | (5) |
| 11 - 20 | (2) | More than 50 | (4) | | |

2. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION.

DESCRIPTION	VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
The over-all flexible hours in your branch	(1)	(2)	(3)	(4)	(5)
The way in which the program was implemented	(1)	(2)	(3)	(4)	(5)
The hours included in the core period	(1)	(2)	(3)	(4)	(5)
The degree of flexibility provided by the periods during which employees can arrive and depart	(1)	(2)	(3)	(4)	(5)
The degree of flexibility for varying the length of the lunch period	(1)	(2)	(3)	(4)	(5)
The method of accounting for hours worked each day	(1)	(2)	(3)	(4)	(5)

3. LENGTH (IN MINUTES) OF LUNCHEON PERIOD

Minimum		Maximum	
---------	--	---------	--

4. WAYS OF RECORDING THE NUMBER OF HOURS WORKED DAILY

- | | | | |
|---|-----|-----------------------------------|-----|
| Employee uses time recording mechanism | (1) | Honour system (no written record) | (4) |
| Employee maintains record of hours worked | (2) | Other (Specify) | |
| Supervisor maintains record of hours worked by employee | (3) | | |

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16

5. ADVANCED NOTICE REQUIRED BEFORE AN EMPLOYEE CAN MAKE A CHANGE IN HIS/HER SCHEDULE

SCHEDULE	NONE	1 DAY	1 WEEK	1 MONTH	OTHER (SPECIFY)	NO CHANGES PERMITTED
Time of arrival and departure	(1)	(2)	(3)	(4)	(5)	(6)
Time of beginning of lunch period	(1)	(2)	(3)	(4)	(5)	(6)
Length of lunch period	(1)	(2)	(3)	(4)	(5)	(6)

6. IN YOUR VIEW, ARE EMPLOYEES IN YOUR ORGANIZATIONAL UNIT SATISFIED WITH FLEXIBLE WORKING HOURS?

VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
(1)	(2)	(3)	(4)	(5)

7. IN YOUR VIEW, IS THE UNION REPRESENTING YOUR BRANCH SATISFIED WITH FLEXIBLE WORKING HOURS?

(1)	(2)	(3)	(4)	(5)
-----	-----	-----	-----	-----

8. FOR EACH OF THE FOLLOWING INDICATE THE DEGREE OF CHANGE SINCE THE INTRODUCTION OF FLEXIBLE HOURS IN YOUR BRANCH.

DESCRIPTION	HAS IMPROVED AND/OR INCREASED	IS THE SAME AS BEFORE	HAS DETERIORATED AND/OR DECREASED	HAS CREATED A PROBLEM	NOT APPLICABLE
The amount of paid overtime worked by employees	(1)	(2)	(3)	(4)	(5)
The amount of unscheduled time off by employees	(1)	(2)	(3)	(4)	(5)
The level of service provided to the public	(1)	(2)	(3)	(4)	(5)
The level of internal services	(1)	(2)	(3)	(4)	(5)
The level of service to other government departments	(1)	(2)	(3)	(4)	(5)
Employee attitudes toward work	(1)	(2)	(3)	(4)	(5)
Individual employee productivity	(1)	(2)	(3)	(4)	(5)
Productivity of your branch	(1)	(2)	(3)	(4)	(5)
Efficiency of day by day operations	(1)	(2)	(3)	(4)	(5)

c/c

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9. PLEASE EXPLAIN:

A. Any problems you are having as a result of the flexible hours program

B. Any changes you think should be made in the program.

SECTION 8 CHARACTERISTICS OF PROGRAM

10. Using the 24 hour clock, please provide the times for your program by filling in the boxes.

HOURS DURING WHICH DEPARTMENT PROVIDES SERVICE				
CORE PERIOD				
Earliest Time at Which Employees Can Begin to Work	Latest Time of Arrival of all Employees	Earliest Time Lunch Period Starts	Latest Time Lunch Period Ends	Earliest Time of Departure of Employees
<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>
				The Time at Which the Normal Work Day Ends
				<div><div></div><div></div><div></div><div></div><div></div></div>

31-34
35-38
39-42
43-46
47-50
51-54
55-58
59-62

11. (A) ARE ALL EMPLOYEES WHO HAVE TIME OFF DURING WORKING HOURS FOR PERSONAL BUSINESS (DOCTORS, LAWYERS, DENTISTS, ETC.) REQUIRED TO MAKE UP THIS TIME IN SOME SUBSEQUENT WORK PERIOD

Yes (1) No (2)

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(B) IF THE ANSWER TO QUESTION 11 (A) IS "NO", HOW MUCH TIME OFF FOR PERSONAL BUSINESS ARE EMPLOYEES USUALLY PERMITTED TO HAVE?

(1) Daily:	15	20	25	30	35	40	45	50	55	60	Minutes
(2) Weekly:	15	20	25	30	35	40	45	50	55	60	Minutes
(3) No established guidelines											

☐☐☐

12. ARE ANY EMPLOYEES WHO TAKE MORE THAN THE MINIMUM AMOUNT OF TIME FOR LUNCH REQUIRED TO COMPLETE THE 7 1/2 HOUR WORKDAY? EXPLAIN.

Yes (1) No (2)

☐

13. (A) DOES YOUR DEPARTMENT HAVE SUMMER-WINTER HOURS OF WORK ARRANGEMENTS SUCH AS DAYLIGHT SAVING?

Yes (1) No (2)

☐

(B) DESCRIBE THESE ARRANGEMENTS:

14. DESCRIBE ANY FORMAL ARRANGEMENTS YOU HAVE MADE TO DEAL WITH COMPLAINTS OR DISAGREEMENTS ARISING OUT OF NEW HOURS OF WORK ARRANGEMENTS.

15. (A) IS IT MORE DIFFICULT FOR MANAGERS TO ENSURE THAT THE NORMAL DAILY HOURS ARE WORKED?

Yes (1) No (2)

☐

(B) IF THE ANSWER TO QUESTION 13 (A) IS "YES", DESCRIBE THE DIFFICULTIES ENCOUNTERED.

71

SECTION C RESULTS OF PROGRAM

16. LIST AND EXPLAIN THE POSITIVE RESULTS THAT HAVE BEEN EXPERIENCED BY THE FOLLOWING AS A RESULT OF THE INTRODUCTION OF FLEXIBLE HOURS IN YOUR BRANCH.

Management

Employees

1. Level of Service Provided to the Public

2. Use of Overtime

3. Productivity

4. Attitudes Towards Work

5. Travel Arrangements

17. DESCRIBE THE COMPLAINTS, DISAGREEMENTS OR PROBLEMS THAT HAVE BEEN IDENTIFIED AS A RESULT OF THE PROGRAM AND EXPLAIN HOW THEY HAVE BEEN DEALT WITH.

18. LIST AND EXPLAIN THE CHANGES YOU WOULD RECOMMEND BE MADE IN THE EDUCATION DEPARTMENT'S POLICY AND GUIDELINES ON HOURS OF WORK ARRANGEMENTS IN THE OPERATION OF YOUR BRANCH.

19. LIST AND EXPLAIN THE ACTIVITIES UNDERTAKEN BY YOUR DEPARTMENT TO IMPLEMENT THE FLEXIBLE HOURS PROGRAM.

20. LIST THE RESOURCES USED TO IMPLEMENT YOUR FLEXIBLE HOURS PROGRAM, E.G. MAN-YEARS, SALARY AND EQUIPMENT.

INTERVIEW SCHEDULE
FLEXITIME-NON-MANAGEMENT

INTERVIEW SCHEDULE

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FLEXITIME GROUP

SECTION A FOR NON-MANAGEMENT PERSONNEL ONLY

In this part of the study, the objective is to learn what non-management personnel feel about different aspects of the flexible hours program.

1. HOW MANY PERSONS ARE EMPLOYED IN YOUR BRANCH?

1 - 10	(1)	21 - 50	(3)	Don't know	(5)
11 - 20	(2)	More than 50	(4)		

2. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION.

DESCRIPTION	VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
The over-all flexible hours in your branch	(1)	(2)	(3)	(4)	(5)
The way in which the program was implemented	(1)	(2)	(3)	(4)	(5)
The hours included in the core period	(1)	(2)	(3)	(4)	(5)
The degree of flexibility provided by the periods during which employees can arrive and depart	(1)	(2)	(3)	(4)	(5)
The degree of flexibility for varying the length of the lunch period	(1)	(2)	(3)	(4)	(5)
The method of accounting for hours worked each day	(1)	(2)	(3)	(4)	(5)

3. LENGTH (IN MINUTES) OF LUNCHEON PERIOD

Minimum	Maximum

4. WAYS OF RECORDING THE NUMBER OF HOURS WORKED DAILY

Employee uses time recording mechanism	(1)	Honour system (no written record)	(4)
Employee maintains record of hours worked	(2)	Other (Specify)	
Supervisor maintains record of hours worked by employee	(3)		(5)

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5. ADVANCED NOTICE REQUIRED BEFORE AN EMPLOYEE CAN MAKE A CHANGE IN HIS/HER SCHEDULE

SCHEDULE	NONE	1 DAY	1 WEEK	1 MONTH	OTHER (SPECIFY)	NO CHANGES PERMITTED
Time of arrival and departure	(1)	(2)	(3)	(4)	(5)	(6)
Time of beginning of lunch period	(1)	(2)	(3)	(4)	(5)	(6)
Length of lunch period	(1)	(2)	(3)	(4)	(5)	(6)

6. IN YOUR VIEW, ARE EMPLOYEES IN YOUR ORGANIZATIONAL UNIT SATISFIED WITH FLEXIBLE WORKING HOURS?

VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
(1)	(2)	(3)	(4)	(5)

7. IN YOUR VIEW, IS THE UNION REPRESENTING YOUR BRANCH SATISFIED WITH FLEXIBLE WORKING HOURS?

(1)	(2)	(3)	(4)	(5)
-----	-----	-----	-----	-----

8. FOR EACH OF THE FOLLOWING INDICATE THE DEGREE OF CHANGE SINCE THE INTRODUCTION OF FLEXIBLE HOURS IN YOUR BRANCH.

DESCRIPTION	HAS IMPROVED AND/OR INCREASED	IS THE SAME AS BEFORE	HAS DETERIORATED AND/OR DECREASED	HAS CREATED A PROBLEM	NOT APPLICABLE
The amount of paid overtime worked by employees	(1)	(2)	(3)	(4)	(5)
The amount of unscheduled time off by employees	(1)	(2)	(3)	(4)	(5)
The level of service provided to the public	(1)	(2)	(3)	(4)	(5)
The level of internal services	(1)	(2)	(3)	(4)	(5)
The level of service to other government departments	(1)	(2)	(3)	(4)	(5)
Employee attitudes toward work	(1)	(2)	(3)	(4)	(5)
Individual employee productivity	(1)	(2)	(3)	(4)	(5)
Productivity of your branch	(1)	(2)	(3)	(4)	(5)
Efficiency of day by day operations	(1)	(2)	(3)	(4)	(5)

9. PLEASE EXPLAIN:

A. Any problems you are having as a result of the flexible hours program

B. Any changes you think should be made in the program.

SECTION B CHARACTERISTICS OF PROGRAM

10. Using the 24-hour clock, please provide the times for your program by filling in the boxes.

HOURS DURING WHICH DEPARTMENT PROVIDES SERVICE					
Earliest Time at which Employees Can Begin to Work	Latest Time of Arrival of all Employees	Earliest Time Lunch Period Starts	Latest Time Lunch Period Ends	Earliest Time of Departure of Employees	The Time at Which the Normal Work Day Ends
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35-38
39-42
43-46
47-50
51-54
55-58
59-62

11. (A) ARE ALL EMPLOYEES WHO HAVE TIME OFF DURING WORKING HOURS FOR PERSONAL BUSINESS (DOCTORS, LAWYERS, DENTIST, ETC.) REQUIRED TO MAKE UP THIS TIME IN SOME SUBSEQUENT WORK PERIOD?

Yes (1)

No (2)

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(a) IF THE ANSWER TO QUESTION 11 (A) IS "NO", HOW MUCH TIME OFF FOR PERSONAL BUSINESS ARE EMPLOYEES USUALLY PERMITTED TO HAVE?

(1) Daily:	15	20	25	30	35	40	45	50	55	60	Minutes
(2) Weekly:	15	20	25	30	35	40	45	50	55	60	Minutes

(3) No established guidelines

12. ARE ANY EMPLOYEES WHO TAKE MORE THAN THE MINIMUM AMOUNT OF TIME FOR LUNCH REQUIRED TO COMPLETE THE 7½ HOUR WORKDAY? EXPLAIN.

Yes	(1)	No	(2)
-----	-----	----	-----

13. (A) DOES YOUR DEPARTMENT HAVE SUMMER-WINTER HOURS OF WORK ARRANGEMENTS SUCH AS DAYLIGHT SAVING?

Yes	(1)	No	(2)
-----	-----	----	-----

(a) DESCRIBE THESE ARRANGEMENTS:

14. DESCRIBE ANY FORMAL ARRANGEMENTS YOU HAVE MADE TO DEAL WITH COMPLAINTS OR DISCREPANCIES ARISING OUT OF NEW HOURS OF WORK ARRANGEMENTS.

15. (A) IS IT MORE DIFFICULT FOR MANAGERS TO ENSURE THAT THE NORMAL DAILY HOURS ARE NORMED?

Yes	(1)	No	(2)
-----	-----	----	-----

(B) IF THE ANSWER TO QUESTION 13 (A) IS "YES", DESCRIBE THE DIFFICULTIES ENCOUNTERED.

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SECTION C RESULTS OF PROGRAM

16. LIST AND EXPLAIN THE POSITIVE RESULTS THAT HAVE BEEN EXPERIENCED BY THE FOLLOWING AS A RESULT OF THE INTRODUCTION OF FLEXIBLE HOURS IN YOUR BRANCH.

	Employees	Management
1. Level of Service Provided to the Public		
2. Use of Overtime		
3. Productivity		
4. Attitudes Towards Work		
5. Travel Arrangements		

17. DESCRIBE THE COMPLAINTS, DISAGREEMENTS OR PROBLEMS THAT HAVE BEEN IDENTIFIED AS A RESULT OF THE PROGRAM AND EXPLAIN HOW THEY HAVE BEEN DEALT WITH.

18. LIST AND EXPLAIN THE CHANGES YOU WOULD RECOMMEND BE MADE IN THE EDUCATION DEPARTMENT'S POLICY AND GUIDELINES ON HOURS OF WORK ARRANGEMENTS IN THE OPERATION OF YOUR BRANCH.

19. LIST AND EXPLAIN THE ACTIVITIES UNDERTAKEN BY YOUR DEPARTMENT TO IMPLEMENT THE FLEXIBLE HOURS PROGRAM.

20. LIST THE RESOURCES USED TO IMPLEMENT YOUR FLEXIBLE HOURS PROGRAM, E.G., MAN-YEARS, SALARY AND EQUIPMENT.

INTERVIEW SCHEDULE

MANAGEMENT - COMPRESSED WORK WEEK

INTERVIEW SCHEDULE

COMPRESSED WORK WEEK GROUP

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SECTION A FOR SUPERVISORS' AND MANAGERS' COMPLETION ONLY

In this part of the study, the objective is to learn what management personnel feel about different aspects of the compressed work week program.

1. HOW MANY PERSONS ARE EMPLOYED IN YOUR BRANCH?

	1 - 10 (1)	21 - 50	(3)	Don't know (5)
11 - 20 (2)		More than 50 (4)		

5

2. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION.

DESCRIPTION	VERY SATISFIED (1)	SATISFIED (2)	NO OPINION (3)	DISSATISFIED (4)	VERY DISSATISFIED (5)
The over-all CWV program in your branch	(1)	(2)	(3)	(4)	(5)
The way in which the program was implemented	(1)	(2)	(3)	(4)	(5)
The hours included in the CWV schedule	(1)	(2)	(3)	(4)	(5)
The degree of flexibility provided by the periods during which employees can arrive and depart	(1)	(2)	(3)	(4)	(5)
The degree of flexibility for varying the length of the lunch period	(1)	(2)	(3)	(4)	(5)
The method of accounting for hours worked each day	(1)	(2)	(3)	(4)	(5)

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14-15

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3. LENGTH (IN MINUTES) OF LUNCHEON PERIOD

Minimum		Maximum	
---------	--	---------	--

4. WAYS OF RECORDING THE NUMBER OF HOURS WORKED DAILY

Employee uses time recording machines	(1)	Measure system (no written record)	(4)
Employee maintains record of hours worked	(2)	Other (Specify)	
Supervisor maintains record of hours worked by employee	(3)		(5)

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5. ADVANCED NOTICE REQUIRED BEFORE AN EMPLOYEE CAN MAKE A CHANGE IN HIS/HER SCHEDULE

SCHEDULE	NONE	1 DAY	1 WEEK	1 MONTH	OTHER (SPECIFY)	NO CHANGES PERMITTED
Time of arrival and departure	(1)	(2)	(3)	(4)	(5)	(6)
Time of beginning of lunch period	(1)	(2)	(3)	(4)	(5)	(6)
Length of lunch period	(1)	(2)	(3)	(4)	(5)	(6)

6. IN YOUR VIEW, ARE EMPLOYEES IN YOUR ORGANIZATIONAL UNIT SATISFIED WITH THE COMPRESSED WORK WEEK PROGRAM?

VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
(1)	(2)	(3)	(4)	(5)
(1)	(2)	(3)	(4)	(5)

7. IN YOUR VIEW, IS THE UNION REPRESENTING YOUR BRANCH SATISFIED WITH THE COMPRESSED WORK WEEK PROGRAM?

(1)	(2)	(3)	(4)	(5)
-----	-----	-----	-----	-----

8. FOR EACH OF THE FOLLOWING INDICATE THE DEGREE OF CHANGE SINCE THE INTRODUCTION OF THE COMPRESSED WORK WEEK PROGRAM IN YOUR BRANCH.

DESCRIPTION	HAS IMPROVED ASPECTS INCREASED	IS THE SAME AS BEFORE	HAS DETERIORATED ASPECTS DECREASED	HAS CREATED A PROBLEM	NOT APPLICABLE
The amount of paid overtime worked by employees	(1)	(2)	(3)	(4)	(5)
The amount of unscheduled time off by employees	(1)	(2)	(3)	(4)	(5)
The level of service provided to the public	(1)	(2)	(3)	(4)	(5)
The level of internal services	(1)	(2)	(3)	(4)	(5)
The level of service to other government departments	(1)	(2)	(3)	(4)	(5)
Employee attitudes toward work	(1)	(2)	(3)	(4)	(5)
Individual employee productivity	(1)	(2)	(3)	(4)	(5)
Productivity of your branch	(1)	(2)	(3)	(4)	(5)
Efficiency of day by day operations	(1)	(2)	(3)	(4)	(5)

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9. PLEASE EXPLAIN:

A. Any problems you are having as a result of the compressed work week program

B. Any changes you think should be made in the program

SECTION B CHARACTERISTICS OF PROGRAM

10. Using the 24 hour clock, please provide the times for your compressed work week program by filling in the boxes.

HOURS DURING WHICH DEPARTMENT PROVIDES SERVICE			
Time at which Employee Begin to Work	Time for Commencement of Lunch Period	Time Lunch Period Ends	Time at which Normal Work Day Ends
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

31-34
35-38
39-42
43-46
47-50
51-54

11. (A) ARE ANY EMPLOYEES WHO HAVE TIME OFF DURING WORKING HOURS FOR PERSONAL BUSINESS (DOCTORS, LAWYERS, DENTIST, ETC.) REQUIRED TO MAKE UP THIS TIME IN SOME SUBSEQUENT WORK PERIOD?

Yes (1)

No (2)

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(8) IF THE ANSWER TO QUESTION 11 (A) IS "NO", HOW MUCH TIME OFF FOR PERSONAL BUSINESS ARE EMPLOYEES USUALLY PERMITTED TO HAVE?

(1) Daily:	15	20	25	30	35	40	45	50	55	60	MINUTES
(2) Weekly:	15	20	25	30	35	40	45	50	55	60	MINUTES
(3) No established guidelines											

12. ARE ANY EMPLOYEES WHO TAKE MORE THAN THE MINIMUM AMOUNT OF TIME FOR LUNCH REQUIRED TO COMPLETE THE 7 1/2 HOUR WORKDAY? EXPLAIN.

Yes (1) No (2)

13. (A) DOES YOUR DEPARTMENT HAVE SUMMER-WINTER HOURS OF WORK ARRANGEMENTS SUCH AS DAYLIGHT SAVING?

Yes (1) No (2)

(B) DESCRIBE THESE ARRANGEMENTS:

14. DESCRIBE ANY FORMAL ARRANGEMENTS YOU HAVE MADE TO DEAL WITH COMPLAINTS OR DISAGREEMENTS ARISING OUT OF NEW HOURS OF WORK ARRANGEMENTS.

15. (A) IS IT MORE DIFFICULT FOR MANAGERS TO ENSURE THAT THE NORMAL DAILY HOURS ARE WORKED?

Yes (1) No (2)

(B) IF THE ANSWER TO QUESTION 13 (A) IS "YES", DESCRIBE THE DIFFICULTIES ENCOUNTERED.

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SECTION C RESULTS OF PROGRAM

16. LIST AND EXPLAIN THE POSITIVE RESULTS THAT HAVE BEEN EXPERIENCED BY THE FOLLOWING AS A RESULT OF THE INTRODUCTION OF THE COMPRESSED WORK WEEK PROGRAM IN YOUR BRANCH.

	Employees	Management
1. Level of Service Provided to the Public		
2. Use of Overtime		
3. Productivity		
4. Attitudes Towards Work		
5. Travel Arrangements		

17. DESCRIBE THE COMPLAINTS, DISAGREEMENTS OR PROBLEMS THAT HAVE BEEN IDENTIFIED AS A RESULT OF THE PROGRAM AND EXPLAIN HOW THEY HAVE BEEN DEALT WITH.

18. LIST AND EXPLAIN THE CHANGES YOU WOULD RECOMMEND BE MADE IN THE EDUCATION DEPARTMENT'S POLICY AND GUIDELINES ON HOURS OF WORK ARRANGEMENTS IN THE OPERATION OF YOUR BRANCH.

19. LIST AND EXPLAIN THE ACTIVITIES UNDERTAKEN BY YOUR DEPARTMENT TO IMPLEMENT THE COMPRESSED WORK WEEK PROGRAM.

20. LIST THE RESOURCES USED TO IMPLEMENT YOUR FLEXIBLE HOURS PROGRAM, E.G. MAN-YEARS, SALARY AND EQUIPMENT.

INTERVIEW SCHEDULE

COMPRESSED WORK WEEK-NON-MANAGEMENT

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INTERVIEW SCHEDULE

COMPRESSED WORK WEEK GROUP

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SECTION A FOR NON-MANAGEMENT PERSONNEL ONLY

In this part of the study, the objective is to learn what non-management personnel feel about different aspects of the compressed work week program.

1. HOW MANY PERSONS ARE EMPLOYED IN YOUR BRANCH?

1 - 10	(1)	21 - 50	(3)	Don't know	(5)
11 - 20	(2)	More than 50	(4)		

2. FOR EACH OF THE FOLLOWING INDICATE THE EXTENT OF YOUR SATISFACTION OR DISSATISFACTION.

DESCRIPTION	VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
The over-all CWV program in your branch	(1)	(2)	(3)	(4)	(5)
The way in which the program was implemented	(1)	(2)	(3)	(4)	(5)
The hours included in the CWV schedule	(1)	(2)	(3)	(4)	(5)
The degree of flexibility provided by the periods during which employees can arrive and depart	(1)	(2)	(3)	(4)	(5)
The degree of flexibility for varying the length of the lunch period	(1)	(2)	(3)	(4)	(5)
The method of accounting for hours worked each day	(1)	(2)	(3)	(4)	(5)

3. LENGTH (IN MINUTES) OF LUNCHEON PERIOD

Minimum			Maximum		
---------	--	--	---------	--	--

4. WAYS OF RECORDING THE NUMBER OF HOURS WORKED DAILY

Employee uses time recording mechanism	(1)	Honour system (no written record)	(5)
Employee maintains record of hours worked	(2)	Other (specify)	
Supervisor maintains record of hours worked by employee	(3)		(5)

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5. ADVANCED NOTICE REQUIRED BEFORE AN EMPLOYEE CAN MAKE A CHANGE IN HIS/HER SCHEDULE

SCHEDULE	NONE	1 DAY	1 WEEK	1 MONTH	OTHER (SPECIFY)	NO CHANGES PERMITTED
Time of arrival and departure	(1)	(2)	(3)	(4)	(5)	(6)
Time of beginning of lunch period	(1)	(2)	(3)	(4)	(5)	(6)
Length of lunch period	(1)	(2)	(3)	(4)	(5)	(6)

6. IN YOUR VIEW, ARE EMPLOYEES IN YOUR ORGANIZATIONAL UNIT SATISFIED WITH THE COMPRESSED WORK WEEK PROGRAM?

VERY SATISFIED	SATISFIED	NO OPINION	DISSATISFIED	VERY DISSATISFIED
(1)	(2)	(3)	(4)	(5)

7. IN YOUR VIEW, IS THE UNION REPRESENTING YOUR BRANCH SATISFIED WITH THE COMPRESSED WORK WEEK PROGRAM?

(1)	(2)	(3)	(4)	(5)
-----	-----	-----	-----	-----

8. FOR EACH OF THE FOLLOWING INDICATE THE DEGREE OF CHANGE SINCE THE INTRODUCTION OF THE COMPRESSED WORK WEEK PROGRAM IN YOUR BRANCH.

DESCRIPTION	HAS IMPROVED AND/OR INCREASED	IS THE SAME AS BEFORE	HAS DETERIORATED AND/OR DECREASED	HAS CREATED A PROBLEM	NOT APPLICABLE
The amount of paid overtime worked by employees	(1)	(2)	(3)	(4)	(5)
The amount of unscheduled time off by employees	(1)	(2)	(3)	(4)	(5)
The level of service provided to the public	(1)	(2)	(3)	(4)	(5)
The level of internal services	(1)	(2)	(3)	(4)	(5)
The level of service to other government departments	(1)	(2)	(3)	(4)	(5)
Employee attitudes toward work	(1)	(2)	(3)	(4)	(5)
Individual employee productivity	(1)	(2)	(3)	(4)	(5)
Productivity of your branch	(1)	(2)	(3)	(4)	(5)
Efficiency of day by day operations	(1)	(2)	(3)	(4)	(5)

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9. PLEASE EXPLAIN:

A. Any problems you are having as a result of the compressed work week program

B. Any changes you think should be made in the program

SECTION 9 CHARACTERISTICS OF PROGRAM

10. Using the 24 hour clock, please provide the times for your compressed work week program by filling in the boxes.

HOURS DURING WHICH EMPLOYMENT PROVIDES SERVICE			
Time at Which Employees Begin to Work	Time for Commencement for Lunch Period	Time Lunch Period Ends	Time at Which Normal Work Day Ends
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35-38
39-42
43-46
47-50
51-54

11. (A) ARE ANY EMPLOYEES WHO HAVE TIME OFF DURING WORKING HOURS FOR PERSONAL BUSINESS (DOCTORS, LAWYERS, DENTIST, ETC.) REQUIRED TO MAKE UP THIS TIME IN SOME SUBSEQUENT WORK PERIOD?

Yes (1) No (2)

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(9) IF THE ANSWER TO QUESTION 11 (A) IS "NO", HOW MUCH TIME OFF FOR PERSONAL BUSINESS ARE EMPLOYEES USUALLY PERMITTED TO HAVE?

(1) Daily: 15 20 25 30 35 40 45 50 55 60 Minutes ☐

(2) Weekly: 15 20 25 30 35 40 45 50 55 60 Minutes ☐

(3) No established guidelines ☐

56-57

58-59

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12. ARE ANY EMPLOYEES WHO TAKE MORE THAN THE MINIMUM AMOUNT OF TIME FOR LUNCH REQUIRED TO COMPLETE THE 7 1/2 HOUR WORKDAY? EXPLAIN.

Yes (1) No (2) ☐

13. (A) DOES YOUR DEPARTMENT HAVE SUMMER-WINTER HOURS OF WORK ARRANGEMENTS SUCH AS DAYLIGHT SAVING?

Yes (1) No (2) ☐

(B) DESCRIBE THESE ARRANGEMENTS:

14. DESCRIBE ANY FORMAL ARRANGEMENTS YOU HAVE MADE TO DEAL WITH COMPLAINTS OR DISAGREEMENTS ARISING OUT OF NEW HOURS OF WORK ARRANGEMENTS.

15. (A) IS IT MORE DIFFICULT FOR MANAGERS TO ENSURE THAT THE NORMAL DAILY HOURS ARE WORKED?

Yes (1) No (2) ☐

(B) IF THE ANSWER TO QUESTION 13 (A) IS "YES", DESCRIBE THE DIFFICULTIES ENCOUNTERED.

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SECTION C RESULTS OF PROGRAM	
16. LIST AND EXPLAIN THE POSITIVE RESULTS THAT HAVE BEEN EXPERIENCED BY THE FOLLOWING AS A RESULT OF THE INTRODUCTION OF THE COMPRESSED WORK WEEK PROGRAM IN YOUR BRANCH.	
Employees	Non-Employees
1. Level of Service Provided to the Public	
2. Use of Overtime	
3. Productivity	
4. Attitudes Towards Work	
5. Travel Arrangements	

17. DESCRIBE THE COMPLAINTS, DISAGREEMENTS OR PROBLEMS THAT HAVE BEEN IDENTIFIED AS A RESULT OF THE PROGRAM AND EXPLAIN HOW THEY HAVE BEEN DEALT WITH.

18. LIST AND EXPLAIN THE CHANGES YOU WOULD RECOMMEND BE MADE IN THE EDUCATION DEPARTMENT'S POLICY AND GUIDELINES ON HOURS OF WORK ARRANGEMENTS IN THE OPERATION OF YOUR BRANCH.

19. LIST AND EXPLAIN THE ACTIVITIES UNDERTAKEN BY YOUR DEPARTMENT TO IMPLEMENT THE COMPRESSED WORK WEEK PROGRAM.

20. LIST THE RESOURCES USED TO IMPLEMENT YOUR FLEXIBLE HOURS PROGRAM, E.G. MAN-YEARS, SALARY AND EQUIPMENT.

APPENDIX D

Variable Listing for Job Satisfaction and Organizational
Performance Items Used in Study, and Factor
Analysis Results from all Groups of
Respondents

Table 119

Variable Listing for Job Satisfaction Items Used
in Correlation and Factor Analysis

Variable Number	Description
1	The over-all program in your branch
2	The way in which the program is organized
3	The method of keeping track of the hours worked each day
4	The freedom you have to decide when you will arrive and depart from work
5	The way your immediate supervisor is administering the program
6	The arrangements you have for travel to and from work
7	Your utilization of the service provided by the bus system
8	Changes which have occurred in the way work is done
9	The way you now organize and complete your work
10	Freedom to handle personal business during the workday

Table 120

Variable Listing for Organizational Performance
Items Used in Correlation and Factor Analysis

Variable Number	Description
1	Travel to and from work
2	Organization of your work
3	Availability of office equipment
4	Your over-all work performance
5	Availability of people with whom you must work
6	Degree of participation in decisions about work assignments
7	Degree of difficulty in scheduling work requiring others
8	Quality of communication about work assignments
9	Ability to arrange meetings with others when necessary
10	Availability of others for 'spur of the moment' discussions or phone calls
11	Desirability of respondent's branch as a place to work
12	Degree of fatigue associated with your daily work assignments
13	The service your branch provides to other branches
14	The service your branch provides to the public
15	The availability of services such as dining rooms, elevators and cafeterias
16	Management of your family affairs
17	Amount of time spent with family
18	Amount of time spent with friends
19	Time available to organize your personal business affairs

Table 121

Factor Analysis of All Respondents Perceptions of Job Satisfaction

Varimax Rotated Factor Matrix

	Factor 1	Factor 2
V1	0.78979	0.28697
V2	0.74872	0.27626
V3	0.63023	0.23275
V4	0.23813	0.71370
V5	0.41520	0.51065
V6	0.34380	0.54595
V7	0.20310	0.34491
V8	0.47848	0.46036
V9	0.44838	0.44852
V10	0.17146	0.71936

Transformation Matrix

	Factor 1	Factor 2
Factor 1	0.71694	0.69713
Factor 2	-0.69713	0.71694

Table 122

Factor Analysis of all Respondents Perceptions for
Changes in Direction of Organizational Performance

Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4
V1	0.35328	-0.01582	0.49166	0.02840
V2	0.14830	0.22239	0.59889	0.22093
V3	0.07942	0.16306	0.31002	0.04922
V4	0.06305	0.24767	0.62767	0.18453
V5	-0.09638	0.75396	0.09761	0.07991
V6	0.11666	0.45941	0.21093	0.17575
V7	0.11944	0.69960	0.16641	0.10255
V8	0.11268	0.49221	0.24329	0.33983
V9	0.13923	0.60213	0.16424	0.25623
V10	-0.00433	0.64168	-0.03620	0.03712
V11	0.20021	0.05732	0.58530	0.12179
V12	0.32149	0.10823	0.55564	-0.04676
V13	0.00082	0.28598	0.13950	0.82927
V14	0.02835	0.19666	0.14886	0.70414
V15	0.24840	0.02568	0.44695	0.06217
V16	0.68127	0.06735	0.48029	0.10164
V17	0.84008	0.05008	0.21261	0.01514
V18	0.71387	0.11087	0.15461	-0.01144
V19	0.72915	0.04718	0.37528	0.06823

Transformation Matrix

	Factor 1	Factor 2	Factor 3	Factor 4
Factor 1	0.53591	0.47113	0.62482	0.31691
Factor 2	-0.59072	0.67515	-0.20180	0.39308
Factor 3	0.32284	0.56333	-0.36257	-0.66856
Factor 4	-0.50954	0.06973	0.66137	-0.54598

Table 123

Identification of Factors - Job Satisfaction

Factor 1	-	Variable 1	Schedule Monitoring
		Variable 2	
		Variable 3	
Factor 2	-	Variable 4	Individual Autonomy
		Variable 5	
		Variable 6	
		Variable 10	

Alternatively Variables 8 and 9 cross loaded upon Factors 1 and 2. Furthermore, Variable 7 did not load upon any of the factors when .4 was employed as a cut off point.

Identification of Factors - Organizational Performance

Factor 1	-	Variable 5	Organizational Communication
		Variable 6	
		Variable 7	
		Variable 8	
		Variable 9	
		Variable 10	
Factor 2	-	Variable 1	Work Scheduling
		Variable 2	
		Variable 3	
		Variable 11	
		Variable 12	
Factor 3	-	Variable 13	Service to the Public
		Variable 14	
Factor 4	-	Variable 15	Availability of Dining Services
Factor 5	-	Variable 16	Family and Personal Life
		Variable 17	
		Variable 18	
		Variable 19	

Alternatively Variable 4 loaded across more than one factor.

APPENDIX E

Correlation Analyses for Personal Variables of Respondents and Organizational Performance Scores

Table 124
Correlation Coefficients for Standard Hours Perceptions of Job Satisfaction

Job Satisfaction Variable	Age		Sex		Occupational Category		Income		Marital Status		Dependent's Assistance		Family Size		Level of Education		Employment of Spouse	
	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.
1	-0.095	0.280	-1.511	0.084	0.155	0.075	-0.167	0.093	-0.017	0.844	0.030	0.722	-0.032	0.553	-0.115	0.153	-0.155	0.114
2	-0.128	0.145	-0.258	0.003 ^b	0.256	0.003 ^b	-0.267	0.004 ^b	-0.077	0.220	-0.017	0.844	-0.032	0.553	-0.115	0.153	-0.155	0.114
3	-0.053	0.545	-0.133	0.128	0.103	0.240	-0.121	0.169	-0.067	0.267	0.042	0.614	-0.118	0.170	-0.103	0.218	-0.112	0.255
4	-0.113	0.198	-0.301	0.001 ^b	0.575	0.000 ^b	-0.402	0.000 ^b	-0.202	0.020 ^a	-0.037	0.677	-0.276	0.001 ^b	-0.449	0.000 ^b	-0.243	0.013 ^a
5	-0.186	0.033 ^a	-0.316	0.000 ^b	0.408	0.000 ^b	-0.345	0.000 ^b	-0.154	0.077	-0.042	0.103	-0.253	0.003 ^b	-0.350	0.000 ^b	-0.253	0.013
6	-0.098	0.262	-0.275	0.001 ^b	0.221	0.008 ^b	-0.228	0.053 ^b	-0.212	0.015 ^a	0.129	0.003	-0.240	0.000 ^b	-0.207	0.017	-0.214	0.017 ^a
7	-0.103	0.252	-0.070	0.425	-0.032	0.720	-0.009	0.216	-0.064	0.234	0.123	0.11	-0.052	0.803	0.003	0.474	-0.015	0.878
8	-0.082	0.348	-0.044	0.613	0.060	0.492	-0.019	0.532	-0.078	0.224	0.06	0.603	-0.038	0.668	-0.035	0.628	-0.117	0.253
9	0.052	0.553	-0.066	0.450	0.049	0.578	-0.056	0.527	0.082	0.351	-0.007	0.444	-0.008	0.925	-0.051	0.565	-0.198	-0.044 ^a
10	-0.048	0.581	-0.173	0.049 ^a	0.363	0.060 ^b	-0.227	0.003 ^b	-0.044	0.015 ^a	-0.033	0.569	-0.035	0.999 ^b	-0.233	0.007 ^b	-0.205	0.037 ^a

* See Variable Listing in Appendix.

^a Significant at .05 level.

^b Significant at .01 level.

Table 125

Correlation Co-efficients for Compressed Hours Perceptions of Job Satisfaction.

Job Satisfaction Variable*	Age		Sex		Occupational Category		Income		Marital Status		Dependents Requiring Assistance		Family Size		Level of Education		Employment of Spouse	
	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.
1	-0.330	0.036 ^a	-0.185	0.272	0.185	0.272	-0.243	0.158	-0.035	0.861	0.122	0.065 ^b	-0.018	0.914	-0.284	0.179	-0.131	0.527
2	-0.343	0.038 ^a	0.023	0.903	-0.020	0.908	-0.112	0.594	0.182	0.537	0.178	0.292	-0.083	0.585	0.111	0.545	-0.126	0.518
3	-0.120	0.443	-0.003	0.983	0.099	0.561	-0.061	0.996	-0.210	0.213	0.348	0.035 ^a	-0.200	0.236	0.129	0.447	0.150	0.541
4	-0.102	0.548	-0.060	0.726	-0.002	0.992	-0.046	0.787	0.134	0.431	-0.011	0.947	-0.120	0.478	-0.186	0.270	-0.231	0.243
5	-0.344	0.037 ^a	0.068	0.688	-0.068	0.688	-0.079	0.643	0.118	0.486	0.229	0.172	-0.195	0.248	0.039	0.820	-0.221	0.362
6	-0.394	0.016	-0.083	0.624	0.080	0.414	-0.169	0.317	-0.172	0.281	0.135	0.069 ^b	-0.130	0.171	-0.124	0.578	-0.094	0.727
7	-0.245	0.144	0.072	0.670	-0.020	0.907	-0.081	0.635	0.040	0.814	-0.016	0.924	-0.033	0.827	-0.345	0.037 ^a	0.033	0.977
8	-0.498	0.002 ^a	-0.135	0.428	0.135	0.428	-0.026	0.949 ^a	-0.132	0.407	0.187	0.283	-0.084	0.222	-0.262	0.110	-0.173	0.428
9	-0.526	0.001 ^a	-0.141	0.407	0.141	0.407	-0.377	0.022 ^a	-0.145	0.409	0.172	0.309	-0.011	0.151	-0.299	0.072	-0.172	0.478
10	-0.241	0.151	0.187	0.267	-0.035	0.837	-0.100	0.758	0.177	0.423	0.109	0.503	-0.030	0.862	0.044	0.911	-0.212	0.382

* See Variable Listing in Appendix.

^a Significant at .05 level.^b Significant at .01 level.

Table 126

Correlation Co-efficients for Flexible Hours Perceptions of Job Satisfaction

Job Satisfaction Variable	Age		Sex		Occupational Category		Income		Marital Status		Dependents Requiring Assistance		Family Size		Level of Education		Employment of Spouse	
	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.
1	-0.068	0.313	0.004	0.951	-0.089	0.180	-0.013	0.645	0.041	0.535	-0.007	0.916	-0.075	0.253	-0.022	0.760	-0.098	0.267
2	-0.069	0.304	0.116	0.080	-0.029	0.469	-0.029	0.865	-0.017	0.860	-0.019	0.722	0.027	0.216	-0.000	1.000	-0.087	0.303
3	0.011	0.636	0.151	0.023 ^a	-0.167	0.012 ^a	0.145	0.923 ^a	0.095	0.155	-0.139	0.038 ^a	0.123	0.066	0.104	0.117	-0.042	0.618
4	-0.070	0.292	-0.112	0.094	0.024	0.713	-0.081	0.524	-0.112	0.092	0.071	0.204	-0.011	0.870	-0.041	0.545	-0.124	0.237
5	-0.058	0.366	0.023	0.622	-0.029	0.667	-0.033	0.626	0.018	0.783	-0.013	0.439	0.090	0.178	-0.027	0.581	-0.061	0.470
6	-0.080	0.233	0.049	0.467	-0.032	0.632	-0.068	0.311	-0.048	0.472	-0.009	0.899	0.062	0.353	-0.015	0.865	0.082	0.355
7	-0.164	0.014 ^a	0.113	0.038	-0.087	0.192	-0.000	0.995	0.027	0.691	-0.061	0.351	0.078	0.242	0.043	0.479	0.007	0.979
8	-0.031	0.644	0.058	0.385	-0.040	0.470	0.040	0.859	0.037	0.594	-0.019	0.465	-0.040	0.543	0.048	0.472	-0.015	0.859
9	-0.031	0.646	-0.000	0.995	-0.082	0.220	-0.010	0.861	0.014	0.753	-0.007	0.942	-0.015	0.826	0.021	0.848	-0.085	0.217
10	-0.002	0.982	-0.006	0.149	-0.024	0.717	-0.033	0.641	0.008	0.904	-0.011	0.442	0.018	0.792	-0.018	0.769	-0.019	0.563

* See Variable Listing in Appendix.

^a Significant at .05 level.^b Significant at .01 level.

Table 127
Correlation Co-efficients for Standard Hours Perceptions of Organizational Performance

Organizational Performance Variables #1	Direction of Change									
	Age		Sex		Occupational Category		Income		Marital Status	
	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.
2	0.112	0.200	0.111	0.207	-0.168	0.354 ^b	0.188	0.312	0.114	0.194
3	0.130	0.138	0.058	0.507	-0.227	0.090 ^b	0.118	0.091	0.102	0.297
4	0.161	0.065	0.119	0.174	-0.164	0.061	0.147	0.093	0.133	0.127
5	0.039	0.657	-0.002	0.981	-0.168	0.055	0.129	0.139	0.059	0.503
6	-0.007	0.722	-0.042	0.850	-0.047	0.839	0.024	0.085	0.003	0.904
7	0.026	0.324	0.036	0.684	-0.242	0.005 ^b	0.210	0.016	0.055	0.533
8	0.075	0.223	0.153	0.089	-0.240	0.506 ^b	0.240	0.008 ^b	0.064	0.140
9	0.091	0.247	0.132	0.117	-0.143	0.191	0.118	0.245	0.066	0.350
10	0.016	0.538	0.046	0.606	-0.144	0.099	0.084	0.340	0.018	0.834
11	0.092	0.292	0.116	0.184	-0.168	0.054	0.187	0.032 ^a	0.045	0.605
12	0.142	0.104	0.124	0.157	-0.217	0.013 ^a	0.213	0.014 ^b	0.089	0.313
13	-0.024	0.788	0.082	0.350	-0.235	0.007 ^b	0.204	0.019 ^a	0.026	0.767
14	-0.040	0.646	0.068	0.440	-0.138	0.115	0.101	0.249	0.051	0.565
15	-0.011	0.905	0.052	0.555	-0.023	0.798	0.019	0.831	-0.000	0.997
16	0.009	0.921	0.124	0.158	-0.168	0.054	0.199	0.022 ^a	0.157	0.073
17	0.277	0.278	0.037	0.813	-0.102	0.661 ^a	0.220	0.113	0.178	0.049 ^a
18	0.011	0.696	0.183	0.016 ^a	-0.278	0.061 ^a	0.248	0.004 ^b	0.120	0.169
19	0.024	0.737	0.120	0.039 ^a	-0.343	0.002 ^a	0.274	0.024 ^a	0.135	0.122
20	0.006	0.547	0.101	0.250	-0.276	0.001 ^a	0.198	0.023 ^b	0.090	0.305

* See Variable Listing in Appendix.

^a Significant at .05 level.

^b Significant at .01 level.

Table 123

Correlation Coefficients for Compressed House Perceptions of Organizational Performance

Organizational Performance	Age	Sex	Occupational Category			Income			Marital Status			Dependents Requiring Assistance			Family Size			Level of Education			Employment of Spouse		
			Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.	Pearson Prob.		
Variables #1	-0.078	0.648	-0.102	0.547	0.254	-0.007	0.469	0.048	0.777	0.103	0.278	-0.384	0.016	-0.711	0.711	-0.397	0.093						
2	0.391	0.060	0.071	0.676	0.039	0.201	0.168	-0.288	0.236	0.164	0.113	-0.134	0.436	-0.034	0.841	-0.441	0.602						
3	0.683	0.604	0.075	0.659	0.317	-0.007	0.769	-0.012	0.942	0.498	0.005 ^b	-0.061	0.721	-0.027	0.876	0.015	0.970						
4	0.219	0.193	0.276	0.270	-0.051	0.765	0.207	-0.581	0.891	0.368	0.025 ^a	0.078	0.604	-0.131	0.439	0.171	0.970						
5	0.079	0.662	0.286	0.086	-0.158	0.319	0.367	0.670	0.770	0.459	0.004 ^b	0.007	0.557	0.101	0.624	0.594	0.616 ^a						
6	0.778	0.995	0.111	0.112	0.014	0.937	0.739	0.670 ^a	0.770	0.236	0.240	-0.373	0.051	0.257	0.760	0.042	0.861						
7	0.124	0.466	0.224	0.482	0.000	1.000	0.299	0.073	1.000	0.336	0.786 ^c	-0.132	0.034	0.147	0.325	0.184	0.450						
8	0.222	0.197	0.650	0.545	0.723	0.225	0.193	-0.057	0.737	0.219	0.083	-0.113	0.421	-0.049	0.774	0.242	0.180						
9	0.221	0.477	0.210	0.213	-0.119	0.482	0.198	0.241	0.511	0.315	0.057	-0.136	0.428	0.128	0.689	0.330	0.389						
10	-0.409	0.932	0.527	0.001 ^b	-0.206	0.165	0.621	0.010 ^a	0.809	0.267	0.110	0.675	0.793	0.401	0.014 ^a	0.777	0.320 ^a						
11	-0.165	0.319	-0.151	0.835	0.079	0.641	-0.423	0.175	0.137	0.314	0.059	0.920	0.908	-0.162	0.338	-0.275	0.255						
12	-0.195	0.246	0.017	0.920	0.236	0.160	-0.026	0.835	0.190	0.269	0.173	0.308	0.111	-0.001	0.994	-0.274	0.353						
13	-0.231	0.750	-0.220	0.944 ^a	0.115	0.263	0.115	0.150	-0.307	0.065	0.319	-0.129	0.450	-0.203	0.329	-0.217	0.373						
14	-0.067	0.835	0.320	0.944 ^a	0.329	0.047 ^a	-0.373	0.621 ^a	-0.307	0.065	0.319	-0.129	0.450	-0.203	0.329	-0.217	0.373						
15	-0.067	0.835	0.320	0.944 ^a	0.329	0.047 ^a	-0.373	0.621 ^a	-0.307	0.065	0.319	-0.129	0.450	-0.203	0.329	-0.217	0.373						
16	-0.313	0.759	-0.103	0.932	0.201	0.545	-0.062	0.891	-0.115	0.485	0.330	0.144 ^a	0.811	-0.211	0.247 ^a	-0.295	0.373						
17	-0.177	0.452	0.051	0.872	0.028	0.765	0.047	0.781	0.033	0.345	0.149	0.104 ^a	0.811	-0.211	0.247 ^a	-0.295	0.373						
18	-0.154	0.364	0.066	0.435	0.232	0.284	0.221	0.476	0.050	0.770 ^a	-0.010	0.935	-0.033	0.754	-0.372	0.132	0.503						
19	0.063	0.713	0.272	0.285	-0.180	0.104	0.350	0.302	0.069	0.421	0.473	-0.170	0.681	-0.077	0.682	-0.123	0.501						
																	0.159						

* See Variable Listings in Appendix.

* Significant at .05 level.

^b Significant at .01 level.

Table 129

Correlation Coefficients for Flexible Hours Perceptions of Organizational Performance

Direction of Change

Organizational Performance Variables #1	Age		Sex		Occupational Category		Income		Marital Status		Dependents Requiring Assistance		Family Size		Level of Education		Employment of Spouse	
	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.
1	0.106	0.111	-0.028	0.187	-0.154	0.020 ^a	-0.639	0.181	-0.002	0.435	-0.001	0.997	-0.097	0.912	-0.734	0.000 ^b	-0.029	0.733
2	0.216	0.001 ^b	-0.025	0.707	-0.101	0.001 ^b	-0.038	0.383	-0.012	0.563	0.137	0.039 ^a	-0.074	0.723	-0.118	0.027	0.067	0.471
3	0.233	0.001 ^b	0.086	0.197	-0.110	0.002	0.031	0.754	-0.038	0.570	0.041	0.339	-0.022	0.635	-0.106	0.112	-0.046	0.588
4	0.204	0.002 ^b	0.068	0.307	-0.137	0.039	-0.014	0.832	-0.033	0.620	0.080	0.232	0.059	0.579	-0.125	0.061	0.039	0.294
5	0.151	0.023 ^a	0.191	0.006 ^b	-0.158	0.017	0.157	0.022 ^a	0.102	0.400	-0.104	0.415	0.114	0.069	0.073	0.273	0.127	0.131
6	0.093	0.164	0.090	0.175	-0.025	0.714	0.057	0.393	0.027	0.682	-0.009	0.891	0.086	0.199	0.003	0.960	-0.020	0.813
7	0.163	0.016 ^a	0.211	0.001 ^b	-0.175	0.002 ^a	0.162	0.015 ^a	0.012	0.836	-0.019	0.777	0.100	0.135	0.079	0.236	0.105	0.212
8	0.129	0.053	0.141	0.034	-0.133	0.046	0.094	0.210	-0.004	0.959	-0.033	0.621	0.082	0.215	0.023	0.735	0.024	0.781
9	0.222	0.000 ^b	0.151	0.023	-0.101	0.128	0.120	0.072	0.019	0.777	-0.108	0.105	0.123	0.068	-0.005	0.943	0.062	0.461
10	0.191	0.004 ^b	0.132	0.033	-0.076	0.254	0.141	0.034 ^a	0.107	0.408	-0.076	0.36	0.072	0.440	0.035	0.419	0.078	0.117
11	0.107	0.103	0.055	0.412	-0.136	0.001 ^a	-0.323	0.176	-0.227	0.245	-0.303	0.153	-0.020	0.762	-0.079	0.238	0.039	0.617
12	0.106	0.111	-0.036	0.591	-0.152	0.023	-0.085	0.204	-0.082	0.221	-0.011	0.871	0.048	0.472	-0.158	0.018	0.011	0.897
13	0.125	0.043 ^a	0.070	0.291	-0.103	0.123	0.061	0.360	-0.001	0.983	-0.017	0.801	0.002	0.971	-0.001	0.993	-0.004	0.959
14	0.163	0.123	0.070	0.296	-0.140	0.035	-0.015	0.523	-0.018	0.786	0.344	0.108	0.020	0.761	-0.073	0.274	0.002	0.335
15	0.089	0.182	0.011	0.867	-0.134	0.044 ^a	-0.069	0.303	-0.093	0.162	-0.022	0.738	0.033	0.621	-0.197	0.001 ^b	-0.024	0.779
16	0.042	0.526	0.027	0.691	-0.112	0.093	-0.010	0.884	0.001	0.994	0.020	0.760	0.011	0.865	-0.106	0.113	-0.146	0.084
17	0.124	0.089	0.020	0.652	-0.077	0.217	0.228	0.075	0.054	0.613	0.275	0.152	-0.046	0.469	-0.070	0.864	0.115	0.851
18	0.102	0.125	0.086	0.197	-0.083	0.190	0.031	0.846	-0.015	0.821	-0.006	0.929	0.018	0.794	-0.060	0.269	-0.106	0.210
19	0.144	0.030 ^a	0.063	0.349	-0.097	0.145	0.027	0.686	0.006	0.925	0.088	0.185	-0.047	0.479	-0.073	0.272	-0.025	0.769

* See Variable Listing in Appendix.

a Significant at .05 level.

b Significant at .01 level.

Table 101
Correlation Coefficients for Compressed Hours Perceptions of Organizational Performance

Organizational Performance Variable*	Importance of Change									
	Age		Sex		Occupational Category		Income		Marital Status	
	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.
1	-0.372	0.023	-0.163	0.335	0.251	0.135	-0.227	0.177	-0.074	0.663
2	-0.217	0.198	0.113	0.504	-0.024	0.887	-0.067	0.784	0.198	0.239
3	-0.234	0.164	0.134	0.466	0.075	0.713	0.070	0.600	0.178	0.478
4	-0.208	0.213	0.078	0.648	0.009	0.956	0.006	0.973	0.127	0.434
5	-0.303	0.074 ^a	0.077	0.649	0.553	0.754	-0.064	0.712	0.066	0.709
6	-0.170	0.314	0.207	0.351	0.124	0.613	-0.112	0.433	-0.042	0.828
7	-0.233	0.166	0.056	0.613	-0.052	0.649	0.019	0.938	0.040	0.108
8	-0.047	0.781	0.203	0.220	-0.024	0.807	0.093	0.574	0.408	0.042
9	-0.227	0.197	-0.040	0.615	0.204	0.227	0.025	0.882	0.250	0.136
10	-0.211	0.210	-0.070	0.601	0.031	0.812	-0.011	0.952	0.186	0.177
11	-0.186	0.265	0.028	0.809	0.145	0.242	0.067	0.622	0.228	0.073
12	0.313	0.060	-0.106	0.531	0.234	0.164	0.133	0.433	-0.229	0.173
13	-0.216	0.199	-0.031	0.705	0.051	0.765	0.027	0.432	0.049	0.771
14	0.125	0.247	-0.176	0.268	0.176	0.216	0.110	0.482	0.054	0.608
15	0.172	0.208	0.038	0.732	-0.058	0.732	0.142	0.403	-0.084	0.622
16	0.169	0.220	0.112	0.599	0.177	0.167	0.028	0.715	0.222	0.168
17	-0.226	0.150	0.054	0.750	-0.054	0.690	0.046	0.770	0.043	0.824
18	0.011	0.948	0.339	0.021 ^a	-0.224	0.182	0.375	0.022 ^a	0.427	0.010 ^b
19	-0.018	0.916	-0.008	0.964	0.008	0.964	0.144	0.595	0.196	0.245
Dependent Requiring Assistance										
	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.
	0.219	0.192	0.219	0.192	0.219	0.192	0.219	0.192	0.219	0.192
Family Size										
	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.
	-0.358	0.030	-0.358	0.030	-0.358	0.030	-0.358	0.030	-0.358	0.030
Level of Education										
	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.
	-0.268	0.109	-0.268	0.109	-0.268	0.109	-0.268	0.109	-0.268	0.109
Employment to Spouse										
	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.	Pearson	Prob.
	-0.260	0.282	-0.260	0.282	-0.260	0.282	-0.260	0.282	-0.260	0.282

* See Variable Listing in Appendix.

^a Significant at .05 level.

^b Significant at .01 level.

Table 132
Correlation Coefficients for Flexible Nurse Perceptions of Organizational Performance

Organizational Performance Variables*	Age		Sex	Importance of Change				Dependents Acquisition Assessment	Family Size	Level of Education	Employment of spouse
	Pearson Prob.	Pearson Prob.		Occupational Category	Income	Marital Status	Nurse Prob.				
1	0.122	0.068	0.181	0.130	0.051	0.061	0.363	-0.077	0.247	0.032	-0.000
2	0.154	0.021 ^a	0.062	-0.007	0.920	0.028	0.678	-0.001	0.992	-0.219	-0.067
3	0.174	0.009 ^b	0.210	-0.126	0.058	0.093	0.163	-0.033	0.428	0.079	0.041
4	0.112	0.092	0.356	-0.084	0.210	-0.007	0.918	-0.038	0.907	0.002	-0.041
5	0.161	0.015 ^a	0.072	-0.028	0.672	0.017	0.795	-0.032	0.439	-0.037	0.026
6	0.137	0.024 ^a	0.173	-0.036	0.595	0.117	0.079	-0.027	0.691	0.074	0.079
7	0.182	0.006 ^b	0.103	-0.120	0.070	0.005	0.941	0.019	0.775	-0.035	0.102
8	0.098	0.144	0.027	-0.047	0.479	-0.009	0.894	0.033	0.619	0.079	0.048
9	0.117	0.078	0.034	-0.107	0.107	0.015	0.820	-0.049	0.465	-0.009	-0.088
10	0.147	0.028 ^a	0.026	-0.091	0.172	-0.030	0.654	-0.031	0.449	-0.031	0.022
11	0.020	0.760	0.139	-0.084	0.206	-0.097	0.144	-0.076	0.254	-0.013	0.056
12	0.188	0.005 ^b	0.028	-0.256	0.000 ^b	0.066	0.324	0.068	0.310	-0.061	0.033
13	0.109	0.233	0.124	-0.317	0.001 ^b	0.001	0.988	0.068	0.307	0.047	-0.020
14	0.158	0.017 ^a	0.175	-0.153	0.017 ^a	0.166	0.012 ^a	-0.152	0.022 ^a	0.069	0.091
15	0.126	0.059	0.068	-0.153	0.100 ^b	0.067	0.719	-0.038	0.479	-0.015	0.119
16	0.152	0.022 ^a	0.110	-0.099	0.136	-0.017	0.800	0.123	0.065	0.022	0.002
17	0.080	0.229	0.158	-0.069	0.299	0.000	0.996	0.138	0.038 ^a	0.009	0.884
18	0.077	0.250	0.104	-0.056	0.400	0.033	0.431	0.006	0.929	-0.026	0.041
19	0.109	0.104	0.146	-0.170	0.010 ^b	0.123	0.064	0.036	0.592	0.082	0.253

* See Variable Listing in Appendix.

^a Significant at .05 level.

^b Significant at .01 level.

APPENDIX F

Client Perceptions of Changes in Service to the
Public Questionnaire and Frequency and Percentage
Distribution of Responses

HOURS OF WORK QUESTIONNAIRE

SERVICE TO THE PUBLIC

OFFICIAL
USE
ONLY
c/cOFFICIAL
USE
ONLY
c/c

FOR EACH OF THE FOLLOWINGS, FIRST INDICATE THE KIND OF CHANGE YOU FEEL HAS OCCURRED SINCE THE INTRODUCTION OF THE COMPRESSED WORK WEEK. SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	CHANGE WAS OF MAJOR IMPORTANCE	NO CHANGE IN IMPORTANCE	CHANGE WAS OF MINOR IMPORTANCE	6	7	8	9	10
1. Availability of specific personnel with whom you must communicate	(1)	(2)	(3)	1	(1)	(2)	(3)				
2. Availability of personnel "for spur of the moment" discussions or phone calls	(1)	(2)	(3)	2	(1)	(2)	(3)				
3. Ability to arrange meetings with specific personnel when necessary	(1)	(2)	(3)	3	(1)	(2)	(3)				
4. Quality of communication about work assignments	(1)	(2)	(3)	4	(1)	(2)	(3)				
5. Quality of service provided by branches	(1)	(2)	(3)	5	(1)	(2)	(3)				

HOURS OF WORK QUESTIONNAIRE

SERVICE TO THE PUBLIC

OFFICIAL
USE
ONLY

OFFICIAL
USE
ONLY

c/c

c/c

FOR EACH OF THE FOLLOWING, FIRST INDICATE THE KIND OF CHANGE YOU FEEL WHICH HAS OCCURRED SINCE THE INTRODUCTION OF THE FLEXIBLE WORK WEEK. SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION	HAS IMPROVED	IS SAME AS BEFORE	HAS DETERIORATED	1	2	3	4	5	6	7	8	9	10
1. Availability of specific personnel with whom you must communicate	(1)	(2)	(3)	<input type="checkbox"/>					(1)	(2)	(3)	(4)	<input type="checkbox"/>
2. Availability of personnel for spur of the moment discussions or phone calls	(1)	(2)	(3)	<input type="checkbox"/>					(1)	(2)	(3)	(4)	<input type="checkbox"/>
3. Ability to arrange meetings with specific personnel when necessary	(1)	(2)	(3)	<input type="checkbox"/>					(1)	(2)	(3)	(4)	<input type="checkbox"/>
4. Quality of communication about work assignments	(1)	(2)	(3)	<input type="checkbox"/>					(1)	(2)	(3)	(4)	<input type="checkbox"/>
5. Quality of service provided by branches	(1)	(2)	(3)	<input type="checkbox"/>					(1)	(2)	(3)	(4)	<input type="checkbox"/>

Table 133

Frequency and Percentage Distribution for Changes in Service to the Public - Compressed Hours Group

FOR EACH OF THE FOLLOWING, FIRST INDICATE THE KIND OF CHANGE YOU FEEL WHICH HAS OCCURRED SINCE THE INTRODUCTION OF THE COMPRESSED WORK WEEK. SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION	HAS IMPROVED		IS SAME AS BEFORE		HAS DETERIORATED		CHANGE HAS OCCURRED IN IMPORTANCE		NO CHANGE IN IMPORTANCE		CHANGE HAS OF MINOR IMPORTANCE	
	f	%	f	%	f	%	f	%	f	%	f	%
1. Availability of specific personnel with whom you must communicate			3	100					3	100		
2. Availability of personnel for spur of the moment discussions or phone calls			2	66.6	3	33.3			3	100		
3. Ability to arrange meetings with specific personnel when necessary			3	100					3	100		
4. Quality of communication about work assignments			2	66.6	1	33.3			3	100		
5. Quality of service provided by branches			2	66.6	1	33.3			3	100		

Total N = 3

Table 134.

Frequency and Percentage Distribution for Changes in Service to the Public - Flexible Hours Group

FOR EACH OF THE FOLLOWING, FIRST INDICATE THE KIND OF CHANGE YOU FEEL WHICH HAS OCCURRED SINCE THE INTRODUCTION OF THE FLEXIBLE WORK WEEK
SECONDLY, IN THE RIGHT HAND COLUMN INDICATE THE IMPORTANCE OF THIS CHANGE.

DESCRIPTION

	HAS IMPROVED		IS SAME AS BEFORE		HAS DETERIORATED		CHANGE WAS OF MINOR IMPORTANCE		NO CHANGE IN IMPORTANCE		CHANGE WAS OF MINOR IMPORTANCE	
	f	%	f	%	f	%	f	%	f	%	f	%
1. Availability of specific personnel with whom you must communicate	1	20	2	40	2	40	2	40	2	40	1	20
2. Availability of personnel 'for spur of the moment' discussions or phone calls	1	20	1	20	3	60	2	40	1	20	2	40
3. Ability to arrange meetings with specific personnel when necessary			5	100			1	20	4	80		
4. Quality of communication about work assignments	1	20	4	80			1	20	4	80		
5. Quality of service provided by branches	1	20	4	80			1	20	3	60	1	20

Total N = 5

APPENDIX G

Raw Data Utilized to Develop Indices for Changes
in Operational Cost for Flextime and Compressed
Hours Branches

Table 135

Raw Data for Comparison of Absenteeism Rates Pre and Post Flextime^a

Time Period	Maximum Change (Days)			Minimum Change (Days)			Average Change ^b (Days)		
	Total Paid	Single Day or Less	Total Paid	Single Day or Less	Total Paid	Single Day or Less	Total Paid	Single Day or Less	Total Paid
Before Innovation (One Year)	27 days	7.5 days	94 days	41.5 days	-	-	-	-	-
After Innovation (One Year)	127 days	34.5 days	52.5 days	24.5 days	-	-	-	-	-
Changes in Days Absent	+100 days	+27 days	-41.5 days	-15 days	-	-	-	-	-

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained for ten flextime branches.

Table 126

Raw Data for Comparison of Labor Turnover Rates Pre and Post Flextime^a

Time Period	Maximum Turnover	Minimum Turnover	Average ^b Turnover
Before Innovation (One Year)	33%	121%	-
After Innovation (One Year)	131.8%	63%	-
Changes in Turnover Rates	+148.8%	-58%	-

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained from 11 flextime branches.

Table 137

Raw Data for Comparison of Overtime Rates Pre and Post Flextime^a

Time Period	Maximum Change		Minimum Change		Average Change ^b	
	Days Overtime		Days Overtime		Days Overtime	
Before Innovation (One Year)	13 days		11 days		-	
After Innovation	31 days		- days		-	
Change in Overtime Rates	+18 days		-11 days		-	

^a Comparative proportions using pre-innovative year as a base year.^b Based on information obtained from six flextime branches.

Table 138
Raw Data for Comparison of Average Staff Sizes Pre and Post Flextime^a

Time Period	Maximum Change		Minimum Change		Average Change ^b	
	Average Staff Size		Average Staff Size		Average Staff Size	
Before Innovation (Year 1, 2)	4 persons		6.5 persons		-	
After Innovation (One Year)	10 persons		6 persons		-	
Change in Average Staff Size	+6 persons		-.5 persons		-	

a Comparative proportions using pre innovative years (two year average) as a base year.

b Based on figures obtained for eleven flextime branches.

Table 139

Raw Data for Comparison of Absenteeism Rates Pre and Post Compressed Workweek^a

Time Period	Total Paid (Days)	Single Day or Less ^b
Before Innovation (June 74 - May 75)	676 days	200 days
After Innovation (June 75 - May 76)	701 days	149 days
Changes in Days Absent	+25 days	-51 days

^a Comparative proportions using pre-innovative year as a base year.

^b Based on figures obtained for Finance, Statistics and Legislation Branch.

Table 140

Raw Data for Comparison of Labor Turnover Rates Pre and Post Compressed Workweek^a

Time Period	Total Turnover ^b
Before Innovation (June 74 - May 75)	71%
After Innovation (June 75 - May 76)	88%
Change in Labor	+17%

a Comparative proportions using pre-innovative year as a base year.

b Based on figures obtained for Finance, Statistics and Legislation French.

Table 141

Raw Data for Comparison of Overtime Rates Pre and Post Compressed Workweek^a

Time Period	Days Overtime
Before Innovation (June 74 - May 75)	3 days
After Innovation (June 75 - May 76)	2 days
Changes in Overtime	-1 day

a Comparative proportions using pre-innovative year as a base year.

b Based on Figures obtained for Finance, Statistics and Legislation Branch.

Table 142

Raw Data for Comparison of Average Staff Size Pre and Post Compressed Workweek^a

Time Period	Average Staff Size
Before Innovation (1973-74)	47 persons
Before Innovation (1974-75)	
After Innovation (1975-76)	51 persons
Changes in Staff Size	+4 persons

a Comparative proportions using pre-innovative years (two year average) as a base year.

b Based on Figures obtained for Finance, Statistics and Legislation Branch.

APPENDIX H
Organization Chart for the Alberta Department
of Education

B30179